

ADMINISTRATIVE INCENTIVES OF INTERORGANIZATIONAL COORDINATION  
FOR DISTANCE LEARNING

A DISSERTATION  
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## DEDICATION

This dissertation is dedicated to my family. I cannot thank you enough for backing me up for this pursuit. Without your support, this work cannot be completed. Your generous love motivates me to continuously proceed further. This honor is for all of you.

## ABSTRACT

Collaboration has become a critical trend in the field of distance education. Many studies indicated that academic administrators believe in the positive impact of distance education, but they did not consider their roles in making distance learning programs effective. It is beneficial to investigate the administrators' perceptions of establishing relationships with the other partners for enhancing the competitive advantages of their distance learning programs. This study examines the incentives that drive distance education administrators to consider collaboration. It also reveals how the administrator's role influences the function and development of collaboration.

In order to uncover administrators' incentives for interorganizational coordination, this study implemented semi-structured interviews and document reviews for data collection through a case named INAC, which was an international academic joint venture by using videoconferencing technology. Eight interviewees comprised two higher-level administrators, 4 mid-level administrators, and 2 lower administrators. The open and axial coding techniques were used to process collected data. The findings identified four administrative incentives: the opportunity of international exchanges, technology, organizational prestige, and commercialization. These incentives influenced

the interorganizational coordination in terms of goals development, participant recruitment, resource leveraging, communication enhancing, and course design. In addition, the INAC project was compared with the literature based on Mattessich's model (2003). It illustrated how the collaboration components, such as leadership, evaluation, communication, goals, budget, and technology, influenced the development of interorganizational coordination in the practical context.

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## CHAPTER ONE: INTRODUCTION

This study examines the incentives that drive distance education administrators to consider collaboration. It also reveals how the administrator's role influences the function and development of collaboration. This study will use a framework, which includes the six categories of factors influencing collaborative partnerships adapted from Mattessich (2003) and the administrative incentives for developing distance learning programs, to understand the administrative processes of developing a distance learning program at a university, Midwestern State University (MSU). In this study, the researcher will use a distance learning program as a case to elaborate and illuminate the literature and understand how and why a collaborative distance education program is developed within a university setting. The case in this study will be called the International Network of Academic Collaboration (INAC). Through the lens of this practical case, the researcher can understand the administrative influence on a distance learning program.

### General Concern of the Area

Currently, the landscape of higher education is confronting a multitude of issues: intense accountability, tight fiscal support, drastic competition, and increasing diversity (Szecsy, Danzig, & Gonzales, 2005; Havice, 2001). In response to these issues, higher education administrators are searching for innovative and effective approaches to establish an appropriate and flexible learning environment (Havice, Watson, & Cawthon, 2000). Advancement in information and communication technology (ICT) enables educators in higher education institutions to expand the educational process beyond the traditional classroom model. Distance education, delivering instruction and training through the use of telecommunication technology, takes the educational process beyond the four walls of the traditional classroom (Rockwell, Schauer, Fritz, & Marx, 1998).

Distance education is moving to the center stage in higher education, especially after the new network-based technology emerged in the mid-1990s (Schauer, Rockwell, Fritz, & Marx, 2005). Many reports indicated this prevalent phenomenon in the higher education field. For example, the Council for Higher Education Accreditation uncovered that 51% of the institutions of higher learning in the United States included a plan for information technology in 1998. One year later, the number increased to 61% who plan

for information technology (S. Levy, 2003). Another study conducted by the Sloan Foundation in 2003 found that 81% of all 5,010 American higher education institutions offered at least one online or blended course, and 49% offered an online degree program (Reindl-Johnson, 2005). Some educators believe that online education is the fastest growing market segment of adult education today (McKenzie, Ozkan, & Layton, 2006).

In the distance education literature, the research has been considerably focused on the learners involved in the distance education process. Many studies have examined how the contextual and demographic factors of learners, such as age, gender, learning style, and technology competency, influenced the perspectives of the learners on distance education (Keller, 2005; Y. Levy, 2001; Song & Yonkers, 2004; Simonson, Smaldino, Albright, & Zvacek, 2006). In addition, many studies examined the student and teacher perceptions of distance education. These participants were asked to reveal their attitudes, motivations, or perceptions about distance education (Simonson et al., 2006; Havice, 2001; Brooks, 2003). In comparison with learners and instructors in distance education, administrators received less attention in the literature, though researchers recognized the need to understand and explore their role (Havice, 2001).

Administrators are key players in distance education alongside learners and instructors (Y. Levy, 2001). Administrators become the interface between faculty and students, between faculty and outside constituents, and between the institution and faculty. They have to deal with conflicting expectations (Husmann & Miller, 2001). Some literature revealed several important trends of higher education on administration. They included visions of distance learning programs, technology integration and support, financial issues, collaborative partnerships, faculty recruitment and training, program marketing and promotion, formative and summative evaluation, technology leadership, and legal issues (Kezar, 2000; Compore, 2003; Schauer et al., 2005; Ertmer, Bai, Dong, Khalil, Park, & Wang, 2002). However, insufficient information regarding the role of distance education administrators was found in the related literature (Havice, 2001; S. Levy, 2003; Adams, 2004). In order to successfully develop and implement a distance learning program, the perspectives and attitudes of distance education administrators must be considered, as well as how incentives and motives drive them to make decisions in practice.

#### Statement of Research Problems

Currently distance education administrators are facing social change. King (2001) indicated four critical changes in higher education: globalization, massification, government intervention, and technological development. Globalization not only increases the accessibility of international students, but also expands the competition with overseas educational programs. Massification reflects the diversity in the profile of learners. Non-traditional students, such as adult learners or international students, will be increasingly involved on campuses. Government intervention is derived from the diverse expectations and demands on higher education institutions about what they do and who should judge the quality of their efforts. Governments reinforce these demands with their own calls for efficiency, quality, and accessibility in educational practices. A significant change is the reduction of government funding. Technological change has also reshaped the nature of education. Technology provides flexibility and accessibility to learners. On the other hand, it brings about new problems, such as the digital divide and resource deficiency (King, 2001; Green & Baer, 2001). Under these pressures, many distance education administrators consider collaboration to be an effective approach for successfully establishing or expanding new educational programs (Kezar, 2000; League for Innovation in the Community Colleges, 1993).

Collaboration can be a critical method for distance education administrators to leverage resources and increase advantages. No matter which model a distance learning program adopts, the administrators can take advantage of collaboration with their partners to create a better learning environment (Fleming, Tammone, & Wahl, 2002). Take the Catalyst Initiative at the University of Washington as an example of the remote classroom arrangement model. Collaboration among the research centers, libraries, and departments can provide better technological support to fit the teaching and learning needs (Alway, Lewis, & Macklin, 2000). For those adopting the joint offering model with the other educational institutions and providers, collaboration can expand the resources, save costs, and reach more students, through distance learning (Yearwood & Nichols, 1998; Alway, Lewis, & Macklin, 2000). Many cases, such as Georgia State University, University of Minnesota, and Texas Teacher Education Institution, used collaboration to enrich their partnerships (Carliner, 2001; League for Innovation in the Community Colleges, 1993; Yearwood & Nichols, 1998; Alway, Lewis, & Macklin, 2000).

Even though collaboration can be effective and beneficial to distance learning programs, some potential risks and difficulties are inevitable in the cooperation process. Different goals and management styles can undermine the connection between the



collaborative partners (S. Levy, 2003). The faculty and staff may lose their will or interest to participate if collaboration is predominantly determined only by administrators (Li, 2002). Geography and time difference is another factor, which can challenge the development of collaboration (Yearwood & Nichols, 1998). Johnston and Thomas (1997) categorized the challenges of collaboration into three frameworks: structural tensions, developmental tensions, and relationship tensions. Structural tensions develop from organizational structures; developmental tensions evolve from the developing process of collaboration, and relationship tensions arise because of the relationship between individuals and organizations. The distance education administrators should discuss the issues of collaboration with all the participants, so that they can determine the priorities and constraints of collaboration, which can lead to strategies to minimize the resistance to the distance learning programs (S. Levy, 2003).

Many research studies pointed out that academic administrators believe in the positive impact of distance education (D. Valentine, 2002; Christo-Baker, 2004; Li, 2002; Kambutu, 2002; Fleming, Tammone, & Wahl, 2002), but the administrators did not consider their roles in making distance learning programs effective (Husmann & Miller, 2001). The administrators have the potential to impact the effectiveness and quality of

distance education. However, they are often not aware of opportunities which can enhance their distance learning programs. Since collaboration has become a critical trend in the field of distance education (Compore, 2003; Kezar, 2000), it is particularly beneficial to investigate the administrators' perceptions of establishing relationships with the other partners in order to enhance the competitive advantages of their distance learning programs. In addition, their insights and reflections can be analyzed as indicators to understand how collaborative distance learning programs are developed and implemented.

### Research Questions

Planning distance learning programs is often a significant focus of the strategic plans for higher education institutions. The distance education administrators need to understand the potential of collaboration in order to react to the internal and external change caused by globalization, technological advancement, and learner diversity. The administrator's viewpoint can provide an alternative angle to explore the impact of distance learning programs. Three research questions are examined through this study:

1. What factors are considered when a university seeks to collaborate with other universities to extend educational opportunities through technology?

2. How do administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development?
3. How does the INAC case compare with the findings from the literature?

These research questions are explored through the lens of a specific case. The INAC project was initiated in 2002 at Midwestern State University (MSU). The digital information technology connects this university with other universities all over the world through an international academic joint venture. Internet-based and digital technology enabled MSU to have instant interaction with its global partners. Through this technology, the instructors co-teach their classes, and the students sitting on both sides of the world participate simultaneously. The INAC courses include the oral discussion, as well as body language and facial expression shown through synchronously projected images of both classrooms.

The partners of the INAC project have been from all over the world, including countries in South America, Europe, Middle East, Asia, and Australia. The course topics varied. Each institution could select the subject to be taught based on their interests. For example, one INAC class with Brazil is public relations while the other with Australia is

a biology seminar. Other classes include poetry, physical biology, comparative films, linguistic lectures, international business, and so on. The instructional formats vary based on the subjects.

### Definitions of Important Terms

The important terms used in this study are identified and defined, including interorganizational coordination, distance learning, and administrators.

#### *Interorganizational Coordination*

The term does not have a clear definition because coordination means different things to different people. Rogers and Whetten (1982) defined interorganizational coordination as “the process whereby two or more organizations create and/or use existing decision rules that have been established to deal collectively with their shared task environment” (p. 12). The process of interorganizational coordination emphasizes the decision-making rules established by multiple partners in order to share tasks and achieve success collectively.

Collaboration and cooperation are terms similar to coordination, yet coordination is more formal than cooperation. The difference between the two terms include the presence of decision rules, the degree of formalization, emphasized goals, involved

resources, and primary participants. Partnership is another term sometimes used as the synonym of collaboration. Berman (1988) refers to partnership as “a family of contractual arrangements that involve open-ended, joint responsibilities for decision making and implementation” (p. 135). In a sense, the term has a similar definition to collaboration.

### *Distance Learning*

According to the definition from the U.S. Department of Education’s Office of Educational Research and Improvement, distance learning is “the application of telecommunications and electronic devices which enable students and learners to receive instruction that originates from some distant location” (Simonson et al., 2006, p. 33).

Simonson (2003) indicated that distance education has four components. The first component is institutionally-based. Distance education differs from self study, by which learners study outside schools. The second component is the separation of teachers and students in time and/or space. Interactive telecommunication is the third component. Currently electronic media play a critical role in the field. The last component, the connection of learners, resources, and instructors, means the learning interaction will engage teachers and learners with sufficient and appropriate resources.

Sometimes e-learning is confused with distance learning. E-learning, or electronic learning, can be defined as any form of learning that utilizes a network for delivery, interaction, or facilitation. It also can be categorized as asynchronous and synchronous modes (Piskruich, 2004). In fact, not all online learning necessarily is distance learning (Simonson et al., 2006, p. 232).

### *Administrators*

Administrators are key players in distance education (Y. Levy, 2001). Many educators indicated that academic administrators could benefit distance learning programs through their leadership and management skills (S. Levy, 2003). Schauer and his colleagues (2005) pointed out that the department chairs and faculty were the two groups immediately impacted by technology-driven change. Havice (2001) categorized three levels of administrators in her work: lower-level, middle-level, and upper-level. The lower-level administrators include heads and chairs of departments or schools; the middle-level administrators are deans and chairs of divisions or college, and the upper-level administrators include chief academic officers, provosts, and associate or assistant provosts. In this study, the researcher will examine the roles of administrators at each level.

### Significance of the Study

The study connects the importance of interorganizational coordination to distance learning, especially from the administrator's viewpoint through the use of a case study.

The understanding can facilitate the diffusion of innovative technology throughout a higher education institution to increase learning quality, meanwhile maintaining faculty and staff engagement and satisfaction. In addition, the systematic approach of this study provides a holistic examination of how the administrative incentives impact the initiation of the international academic joint venture and observes how the interorganizational coordination is operated. The findings will not only enhance the understanding of administrators' incentives of distance education, but also describe how the partnership is established with the international partners. This study may provide some practical suggestions and comments to the other distance learning programs, although the results are not directly generalizable to all situations as a single case and as a qualitative study.

### Assumptions and Limitations

There are two primary assumptions about the study. First, the researcher assumes that the participants will fully disclose their experiences and perceptions about their experience in the INAC project. The response from the participants is directly relevant to

research questions. Second, the participants will honestly report their insights and thoughts about what happened in the INAC project. In order for the participants to express their true opinions without worrying about consequences in their interpersonal relationships or job security caused by the study, the interviewees and project are given pseudonyms instead of revealing their true identities.

Another limitation is relevant to the enthusiasm of the participants. The participants have voluntarily agreed and are enthusiastic about participating in the project. In order to check the accountability of the participants, multiple sources of information will be used for verification.

Qualitative case study is the approach implemented for the study. Its emphasis is to provide better understanding of this case within a unique context. While the findings are not directly generalizable, they will be compared to the literature to see how they are affirmed or contradicted.

### Researcher Background

As the research instrument in the study, the researcher designs the study, collects data, and analyzes findings. It is important for the researcher to position himself to acknowledge his perspective and interests. The researcher is a doctoral student of the



Department of Educational Studies at MSU. His previous technology background, with masters degrees in instructional technology and in information technology, benefits him as he explores the issues and challenges of distance learning in this study. In 2005, the researcher participated as a liaison in an INAC class between the Department of Telecommunications of MSU and the Department of Radio and TV at NCCU in Taiwan. The liaison job continued until 2006. Meanwhile, he also conducted a pilot study, Interorganizational Collaboration for Distance Learning in Taiwan. He sought to investigate the perspectives of international collaboration from the Taiwanese stakeholders, including administrators, faculty, technology staff, and students. In this study, the researcher will focus on the American administrative perspective of interorganizational coordination for distance learning.

### Summary and Organization of the Study

This study focuses on the administrative incentives of distance learning and the implementation process of interorganizational coordination from the perspectives of the administrators. A project named INAC at MSU will be used as a case to explore the research questions: What are the factors to consider when the administrators develop interorganizational coordination in their distance learning programs? How do the

administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development? The study will implement a qualitative approach to reveal the importance of interorganizational coordination to distance learning. The findings will not only enhance the understanding of administrators' incentive of distance education, but also describe how the partnership can be established with the international partners.

The study will be presented in five chapters. Chapter one is the introduction, which provides a brief picture of the problems and purpose of the study, explanation of the value of the study, and definitions of the key terms relevant to the topic. Chapter two is the literature review. The chapter synthesizes the relevant literature and presents it to support the agendas mentioned in the study. It comprises three sections. The first section focuses on the administrative consideration and incentives of implementing distance learning. The second section addresses the opportunities and challenges of interorganizational coordination. The last part discusses the effective strategies of building the interorganizational coordination in distance learning programs. The third chapter, methodology, describes the study design and the process of data collection, analysis, and verification. Chapter four presents the research findings in an organized way,

including data from the interview transcripts and collected documents. The last chapter provides discussion and conclusions of the study, as well as implications for future studies.

## CHAPTER TWO: LITERATURE REVIEW

### Administrative Initiatives of Distance Learning

It has been predicted that distance learning technology is accelerating change in higher education institutions (Christo-Baker, 2004). With the emergence of the information communication technology (ICT), distance learning provides many promises to the field of education (D. Valentine, 2002). The benefits from distance learning can be identified as both individual and institutional advantages (Piskurich, 2004). With respect to institutions, its benefits emphasize the strength and opportunity to reach a new market or maintain the current market. Improving instruction is considered an attractive advantage to school, corporations, and program providers (Piskurich, 2004; Dooley & Murphrey, 2000; Ryan & Lane, 1998). In some rural or poor areas, distance learning can increase the instructional resources, as well as be the solution to the shortage of faculty (Schwartzbeck, 2003). The learners' benefits are associated with personalized learning

styles and effectiveness. Distance learning can save commuting costs and time. In addition, the accessibility, convenience, and flexibility are the most commonly discussed features of distance learning (Piskurich, 2004; Simonson et al., 2006; D. Valentine, 2002; Brooks, 2003; Milheim, 2001).

In contrast, distance learning also has its shortcomings. Many researchers have analyzed the disadvantages of distance learning. For example, faculty use of ICT technology for instructional purposes has not caught up with the institutional increases in technological investment. The lack of faculty training may decrease the instructional quality and effectiveness (Christo-Baker, 2004). A survey in 2000 showed the ten strongest barriers to distance learning, such as: increased time commitment, lack of money to implement distance education programs, organizational resistance to change, lack of shared vision for distance education in the organization, lack of support staff to help course development, lack of strategic planning for distance education programs, slow pace of implementation, poor faculty compensation and incentives, difficulty keeping up with technological changes, and lack of technology-enhanced classrooms, labs, or infrastructures (Simonson et al., 2006). These factors included aspects of instruction, administration, and learning.

According to the relevant literature, the administrator had different concerns and perspectives than the faculty members. The administrators focused more on the cost, resource, and recruitment aspects. On the other hand, there were many factors relevant to the faculty perspectives of distance learning, including improving teaching and learning, increasing flexibility to their schedule, embracing new challenges, and so on. These factors were analyzed as the following:

#### *Administrator Perspectives of Distance Learning*

One of the brilliant promises of distance learning was financial in nature (D. Valentine, 2002; Milheim, 2001). While this financially-driven issue causes many protests from the faculty, the administrators still look at the bright side of distance learning (Li, 2002). The administrators could save costs by delivering education to the learners who can not attend the campuses. With the ICT technology, the administrators could provide “anywhere and anytime” education to the students, especially to the non-traditional students. (D.Valentine, 2002; Schifter, 2000; Li, 2002; Y. Levy, 2001)

Using distance education not only increases enrollments, but also decreases the relative costs of physical facility and equipment (Schifter, 2000; Li, 2002; Schauer et al., 2005; Dooley & Murphrey, 2000). Many colleges and universities considered distance

learning programs as a new revenue source. Many, especially those suffering from insufficient government funding, were looking forward to an effective strategy to control the costs (Schauer et al., 2005; Dooley & Murphrey, 2000; Milheim, 2001). The distance learning institutions did not have to increase the number of classrooms or install an expensive technology infrastructure. Rural schools also can take advantage of distance learning to enhance the learning quality of K-12 education and continuing education.

In addition, some studies indicated that distance learning would help higher education institutions to recruit faculty. Schwartzbeck (2003) and Ng (2006) found telecommuting technology has the potential to help distance education institutions attract faculty or instructors from a broad area. Ng also mentioned that distance learning provided better retention of competent staff because the innovative delivery system allowed the experienced educators to continue to teach online, even when they were retired.

Different voices against the advantages of distance learning were mentioned by some researchers. The cost-effectiveness of distance learning remained illusive to higher education institutions. Since distance learning could increase the enrollments with the low delivery cost, many administrators underestimated the other factors potentially

influencing the cost-effectiveness of this approach (Kezar, 2000; Li, 2002). D. Valentine (2002) listed some problems that distance learning might cause, such as the hidden costs of upgrades, misuse of technology, and training expenditures. Many studies pointed out that misuse of technology might cost more money than needed (Kezar, 2000; D. Valentine, 2002). In addition, most administrators did not consider the intangible costs, such as extra faculty time, student support efforts, and compensation (Li, 2002).

Better use of technology could bring positive outcomes of learning, such as longer retention and better participation, and the distance learners also could benefit through better academic advising and counseling (Schauer, et al., 2005; Kezar, 2000). Some administrators believed distance learning via technology could improve instruction and enhance learning (Dooley & Murphrey, 2000; Schifter, 2000). Would technology itself improve the quality of teaching and learning? The educators did not think the answer was that simple. The relevant studies proved the effectiveness of distance learning is based on instructional preparation, faculty commitment, and an understanding of learner needs (D. Valentine, 2002). In order to ensure the learning quality, the distance education administrators had to cooperate with faculty and learners to create an optimal learning environment.



Under the current social change and academic trends, distance learning is becoming a strategic tool to administrators. Three primary themes are relevant to educational change: technological drivers, competitive drivers, and workplace drivers (Christo-Baker, 2004). Technology changes the current educational system since it delivers different formats of material to meet diverse learner needs. The advancement of technology promotes learning beyond the campus boundaries (Milheim, 2001). The rapid development of technology also accelerates competition in the field of higher education. Technology expands the accessibility of local universities or colleges to new markets out of state or even overseas. On the other hand, more competitors will come from different sites. These education providers need to prepare for the globalization trend in advance (Rumble, 2000; King, 2001). In addition, more and more non-traditional students have returned to the campus in order to pursue lifelong learning goals. These adult learners had different learning needs, as well as learning limitations, such as time and money. Distance learning with technology provided a flexible and accessible alternative to these learners (D. Valentine, 2002; Schifter, 2000; Li, 2002). The pressures from these educational changes drive the administrators to implement and promote distance learning.

### *Faculty Perspectives of Distance Learning*

Faculty from different institutions had diverse reasons to get involved in distance learning programs. Two surveys found that intrinsic motives and personal needs were the primary motivators for participating in distance education. The intrinsic motives included improving teaching and embracing challenges. The personal needs were related to monetary reward and free time (Meyer, 2002; Rockwell et al., 1999). In addition to intrinsic motives and personal needs, involvement in distance education could bring in the “top names” of the faculty in their disciplines through various technology options (Milheim, 2001; Meyer, 2002; Dooley & Murphrey, 2000). Flexibility was another motive about distance education perceived by faculty. The faculty of distance education could balance their work between school and home. Also, some faculty believed working at home could increase productivity and work quality (Ng, 2006; Dooley & Murphrey, 2000).

On the other hand, many studies analyzed inhibitors preventing faculty from participating in distance education. Distance education requires more time and labor for course planning and implementation. In order to handle the technology of distance education, faculty and staff needed proper training as well as technology support, which

were not usually available from the administrators. Besides, many administrators did not provide adequate compensation and incentive structures, in which faculty's endeavor to work in distance education was not considered in their tenure review or reckoned into their professional credits. In some cases, distance education programs were developed because of administration-centered advocacy. Other issues include: faculty could lose autonomy and control of the curriculum; and faculty could lose commitment under these pressures and limitations (Schauer et al., 2005; Y. Levy, 2001; Li, 2002; Rockwell et al., 1999; D. Valentine, 2002).

#### *Administrative Incentive for Implementation of Distance Learning*

According to the perceptions of key players, administrative incentives for implementing distance learning can be divided into seven categories, including: commercialization, prestige, personal gains, resources, technology, learning quality, and control.

#### *Commercialization*

Commercialization was a major trend for corporate control and management-related decisions (Kezar, 2000). Many colleges and universities consider distance learning programs an important revenue source (Li, 2002). Administrators could

increase enrollments by expanding the number of learners at the other sites. They could provide more learning alternatives for diverse needs, and also partner with the other institutions or education providers for funding. The entrepreneurial approach with technology could lead the colleges and universities into the new market.

### *Prestige*

Some administrators recognized the importance of being an early adopter or having close proximity to technology, not only because it would positively impact the rate of diffusion, but also because it could increase the reputation of the institution (Dooley & Murphrey, 2000). Reputation was considered a beneficial component of a strategic plan of distance learning (Adams & Seagren, 2004). In particular, current technology could disseminate this reputation out of the state, even overseas; thus, colleges and universities could increase their competitive advantages.

### *Personal gains*

The extrinsic factors of administrative incentives were not mentioned in the literature as much as the internal intrinsic factors. Personal gains, such as credit toward promotion, compensation, support from the supervisors, and job security provided significant extrinsic factors for participation in distance learning programs for the

administrators and faculty (Meyer, 2002; Brooks, 2003). However, some reports indicated that faculty efforts of teaching in distance learning programs did not count toward their tenure or promotion (D. Valentine, 2002; Wilson, 1998). It seemed that this reward of teaching distance learning programs did not work out for every faculty member.

### *Resources*

Distance learning provides an excellent opportunity to coordinate with other education institutions or providers for leveraging resources. Administrators partnering in a distance learning program may not need extra classrooms for increasing students. The counterparts could provide technological support to assist with the learning of this program. This approach may decrease the dependence on the government funds (Schauer et al., 2005; Dooley & Murphrey, 2000; Milheim, 2001). Also, distance learning would benefit the administrators in recruiting and retaining the relevant personnel, including faculty and support staff (Schwartzbeck, 2003; Ng, 2006). Distance education is seen as a viable approach for expanding the sources of educational resources for the administrators.

### *Technology*

Technology was one of the most discussed issues in the literature of management. Better use of technology has brought many positive outcomes to the participants of distance education. For example, the students could have more flexibility and a convenient alternative to classroom learning. Administrators could gain a higher student enrollment and institutional reputation (Kezar, 2000) through the positive implementation of technology supporting distance learning. New ICT technology holds the promise to be increasingly used in the field of distance learning. The administrators should keep tracking this trend of innovation (Piskurich, 2004; S. Levy, 2003; D. Valentine, 2002; Reindl-Johnson, 2005).

### *Learning Quality*

Not only the administrators, but also the faculty and support staff recognized the potential of distance learning for learning enhancement (Dooley & Murphrey, 2000). Distance learning using the new ICT technology has made pedagogical changes, which transformed traditional education into a learner-centered approach (Yearwood & Nichols, 1998). In this approach, the students can customize the learning process to their needs, and the faculty work more like coaches than lecturers. Distance learning has become an

alternative of improving teaching and learning for the administrators, faculty, and learners (Schauer et al., 2005; Kezar, 2000).

### *Control*

Another extrinsic factor promoting distance learning was the requirement from the supervisors or the department to implement this type of program (Meyer, 2002). If administrators or faculty were not willing to take part in distance learning, others in the organization would require them to participate. In order to respond to the current pressures of management, the colleges or universities would adopt a vertically integrated approach to retain control over all the operations and processes to deliver a distance learning program (Rumble, 2000). Distance learning programs could be developed through this administration-centered advocacy.

### Impacts of Interorganizational Coordination

The emergence of interorganizational coordination can be traced back to the 1960s. The emphasis of the organization theories in that time focused on increasing control over the uncertainty of environmental emergencies. From the 1950s to the 1960s, the research about interorganizational coordination appeared in the form of case studies. More empirical joint venture research emerged in the late 1960s. Models of cooperation

began in the 1970s. In the late 1970s, research was marked by several large-scale surveys of antecedents and consequences of coordination (Rogers & Whetten, 1982).

Rogers and Whetten (1982) defined interorganizational coordination as the “process whereby two or more organizations create and/or use existing decision rules that have been established to deal collectively with their shared task environment” (p. 12).

The definition comprises four critical components. First, it emphasizes the decision-making rules established between the partners. Second, it addresses the importance of the shared task environment. The role of collectivity and attainment is the third component. The last component stresses joint decision-making and action.

Generally speaking, collaboration is regarded as a more effective strategy than competition for higher education organizations. Due to the uncertainty of diversity and change, higher education institutions will expand and enhance their strength and advantages for survival through collaboration. Essential resources for organizational survival include: money, clients, manpower, information, and power (Beder, 1984a). Through collaboration, organizations can increase their tangible and intangible resources. For example, some continuing education programs will cooperate with computer companies for free software or equipment. On the other hand, collaboration has some



hidden costs, such as time, dislocation, goal displacement, or control issues. For some new programs, the collaborative process is very time-consuming since there are so many aspects needed to negotiate beforehand. If the cost is greater than the benefit, the collaborative partnership will be short-lived (Li, 2002; Rogers & Whetten, 1982).

### *Opportunities in Interorganizational Coordination*

Interorganizational coordination can bring tangible and intangible benefits to the organizations involved. According to the relevant literature, benefits can include: resources, strengthening the position of the organization, mutual gain and expertise, collaborative mindset, and organizational culture.

### *Resources*

Collaboration creates a variety of opportunities. Organizations in the private sector try to find more resources to enhance the competitive advantages in their own domains, while organizations in the public sectors try to integrate the resources for sustaining and enhancing their services and performance (Larrance, 2002). By leveraging resources, a shared initiative may save partners money and can often pave the way to further collaboration. The collaborative process creates growth and energy.

Expanding resources through collaboration includes short-term and long-term benefits. From tangible to intangible, benefits include: saving money, sharing resources and expertise, ensuring great efficiency, improving quality, and avoiding unnecessary duplication (Larrance, 2002). For example, the partnership between schools and colleges will expand the learning opportunities not only for students, but also for faculty and staff. The additional knowledge and expertise will provide professional development to the stakeholders.

#### *Strengthening the Position of the Organization*

In order to respond to fast-paced technology, political networks, and information, organizations seek opportunities to increase their strengths and diminish their weaknesses. Collaboration is an appropriate strategy for some marginalized organizations to overcome the problem of simply being peripheral (Glowacki-Dudka, 1999). Taking examples from continuing education programs, Beder (1984b) indicated that many cases possessed characteristics that require collaboration with other organizations, such as resource insecurity, the need for flexibility beyond that of the old institutions, and insecurity about the market within the organization.

Through partnerships, organizations can expand their capabilities or do more with less. Their efficiency may be improved. Also in the age of turbulent change and shifting boundaries, collaboration enables organizations to be more flexible to leverage competencies and to create new ventures that would have been inconvenient to undertake on their own (Bergquist, Betwee, & Meuel, 1995). In addition, collaborative partnership may benefit by providing a wider geographic reach into diverse global markets, in which organizations can secure their positions in the age of globalization.

#### *Mutual Gain and Expert*

Technological advancement leads to the phenomenon of professional fragmentation. No single organization can meet every need or have every skill. Therefore, collaboration with other organizations can supplement resources that may be lacking in one partner. Neal (1988) indicated that a consortium has many opportunities for blending the information, insights, and voices of the members so that all of them benefit.

#### *Collaborative Mindset*

One opportunity derived from collaboration is the ability to create a new mindset for an organization. In a joint venture, the concerns from the participants will be taken into account and will be solved according to their needs. The collaborative mindset is a

heightened awareness of the interdependent relationship among the stakeholders. It often renews willingness to search for trade-offs that could produce a mutually beneficial solution (Glowacki-Dudka, 1999).

### *Organizational Culture*

Organizational culture will influence the productivity, market position, and the bottom line. Many leaders turn to the latest theories, techniques, and technologies for creating a competitive edge as the right culture. However, in reality, successful organizational cultures depend on inspired individuals (Wilkins, 2004). One opportunity derived from collaboration is the ability to create a new mindset for an organization. In the joint venture, the members will have the opportunity to contribute their skills and knowledge. The process will create a new organizational culture. In the collaborative partnership, the members will commit to enhancing their skills and confronting any change under the appropriate leadership. The process of collaboration will provide the opportunity to change the organizational culture.

### *Challenges to Effective Interorganizational Coordination*

Effective collaboration is not easy to achieve, and it will not spontaneously occur. It must be purposeful, planned, and structured into a successful model for the stakeholder

(Gideon, 2002). In the process, there are many factors, internal or external, that will influence the partnership relationship. For example, lack of institutional commitment, lack of clarity of goals and objectives, or lack of communication among stakeholders will disrupt the collaboration.

Interorganizational coordination gets more stakeholders involved in the partnership. Beder (1984a) indicated that some costs should be put into consideration. Extra time is expected for communication and negotiation between partner organizations. Control is another issue for collaboration because partner organizations will not want to lose their autonomy. In order to gain mutual benefits, the process of collaboration will influence the goals of the stakeholders. The extent of goal displacement is relevant to the development of partnership. In addition, remaining in its domain or turf is very important for an organization. Collaboration will bring up the dislocation issue between the partners.

In order to analyze the challenges for interorganizational coordination, a three-dimension framework of daily tension for collaboration will be adopted here. The three dimensions include relationship tensions, structural tensions, and developmental tensions. In the relationship tensions, the issues include challenge vs. support,

individuality vs. community, and confrontation vs. agreement. The structural tensions are comprised of the issues of process vs. product, support of innovation vs. support of continuity, time for reflection vs. time for action, and openness vs. focus. The last dimension is developmental tensions, referring to the issues of being vs. becoming, risk-taking vs. comfort, promotion of learning vs. promotion of comfort (Johnston & Thomas, 1997).

### *Structural Tensions*

The structural tensions that develop from organizational structures can be seen as a challenge to collaboration. These tensions can develop from the structure itself, from the use of time, and from the funding policy, which helps to support collaboration.

*Organizational structure.* Collaboration is generally more than interpersonal interactions among the stakeholders. Usually it will involve the organizational structures in the process as well (Beder, 1984b). When the organizational structures of the partners are incompatible, the operations of collaboration will be disrupted because the incompatibility of organizational structure will develop internal strain and sacrifice efficiency. Generally, adopting fluid and flexible structures will make it easier to adapt to those of the partners.

*Collaboration stages.* There are different stages in any collaboration. It is necessary to understand the foci of the stages. For example, the most intense need for funding and staff time often occurs during the start-up phase. The organizations have to prepare themselves for different stages of the partnership. In the early phase of collaboration, short-term and modest goals can help the joint efforts and the trust relationship. Then the partners will develop a more complex and large scale venture (Mattessich, 2003).

*Policy formulation.* Decision-making among organizations sometimes can be the focus for a partnership. Some non-profit organizations will especially collaborate to influence public opinion. Such partnerships vary in the degree to which decision-making responsibility is delegated from an organization to its partners (Berman, 1988). Another reason for making partnerships is monetary support. Money is the critical factor for organization survival, especially for some continuous educational programs (Glowacki-Dudka, 1999). Policy formulation will influence how the partner organizations function and perform.

### *Developmental Tensions*

Collaboration is an evolving relationship between organizations. As they grow and adapt, developmental tensions can arise as challenges to collaboration. The developmental tensions in collaboration include different expectations among the partners and their organizations as well as differing perceptions of effectiveness. In addition, bad management skills will influence collaboration.

*Expectations.* Neal (1988) stated that partners usually bring in different perceptions of risk and various perspectives about the return of the agreement. Also, expectations about the processes and philosophies used may be different. Establishing realistic expectations is important for collaboration.

For example, Rogers and Whetten (1982) pointed out some variances of expectation. Usually an organization will try to maximize its autonomy. However, within collaboration, organizations have to compromise between control and concession. If the power of decision-making leans to one side, the other will be distressed, and eventually there will be a problem of lack of candor (T. Valentine, 1984).

*Effectiveness.* The challenge of effectiveness comes from diverse expectations. This occurs when members' perceptions of what ought to be happening, although not



clearly defined, are not being fulfilled. For example, the partners may differ in their evaluations of the collaboration. The outcomes of the evaluations could possibly cause conflicts among the partners (T. Valentine, 1984).

*Management.* This issue involves making good use of resources, consulting with a steering committee for ideas, and being able to see progress in the common goals (Glowacki-Dudka, 1999; T. Valentine, 1984). Management is critical to a collaboration plan. Some failures of collaboration are simply because of lack of a well organized plan or bad management skills.

#### *Relationship Tensions*

The relationships between individuals and organizations are involved with collaboration. The relationships can enhance collaboration. Meanwhile, the process of interpersonal interaction will create some challenges for collaboration.

*Complementary members.* The joint efforts of collaboration do not just come from those stakeholders who have time available. The partners have to carefully select the members for contributions. Poor selection of partners or lack of commitment from the participants will undermine the joint efforts (Rogers & Whetter, 1982; T.Valentine, 1984).

Even though collaboration is initiated in order to advance a shared vision, stakeholders are anxious to progress their own interests within that vision.

*Leadership.* Effective leadership will be a critical challenge of collaboration.

Organizations vary greatly depending on their leadership structure and communication channels. When collaborating, the structure of leading and following is intertwined. If leadership is ineffective at the committee level, action agendas are not developed. A joint venture will be successful only when it represents an area in which the institution's goals and needs can be met through joint action (Neal, 1988).

*Communication.* One of the attributes of collaboration is communication:

coordination and facilitation. The partnership can not undertake any initiatives without authorization and assistance from its members. Participants in collaboration must identify development endeavors in those areas where sufficient institutional goals and need intersect. It is important for the leaders to communicate and clarify the missions of collaboration to the followers (Neal, 1988).

*Trust.* Establishing a trusting relationship is the essential component of

collaboration. However, it is one of the most difficult challenges. Many activities can threaten or damage trust relationships between partners. Trust could be impaired when

one party did not commit to mutual benefits and common goals (Glowacki-Dudka, 1999).

For example, when a party only wants to fulfill its own interests and dominate the joint effort or uses proprietary information in unethical ways, trust can hardly remain between the partners.

### Effective Strategies for Collaboration in Distance Learning

There are many cases discussing critical factors of collaboration. Bergquist, Betwee, and Meuel (1995) stated that the nature of effective partnership includes shared direction, structure, system, culture, and competency. Dodgson (1993) indicated that there are three learning processes in continuing partnerships: learning about partners, tasks, and outcomes. Hourcade and Bauwens (2001) regarded collaboration as an ongoing style of professional interaction in which the stakeholders are engaged in sharing program planning, implementation, evaluation, and overall accountability. Recently, Mattessich (2003) uncovered six categories of factors influencing success or failure of collaborative partnerships. The six categories--general environment, membership, structure and process, communication, purpose, and resources--will be used as the framework for effective collaboration.

### *General Environment*

The environmental audit is the critical indicator of how successful collaboration is.

Usually the organizations with a rich history of collaboration or cooperation have a head start. Those having no experience or negative experiences will need more time and effort to shape their expectations and develop commitment. In addition, organizations have to take the social climate or political climate into account. This does not mean that challenging the controversial issues or social norms will damage the collaboration.

Having general support from the social and political environment will reduce the time required to overcome the barriers for partnering (Mattessich, 2003).

Another environmental factor is the reputations of the collaborative partners. The better the reputation an organization has for building up partnerships, the more attractive the partners will feel, and the easier the process of collaboration will go. For example, a school with successful collaborative experiences seems more attractive and reliable to the prospective community partners when building up their partnership. Usually, those institutions good at collaboration are well planned and goal-oriented, so that their partners can realize the achievement of cooperation (Sanders, 2006).

### *Membership*

Collaboration usually functions based on an effective partnership team, which includes stakeholders from different categories of involvement. Having representatives from various categories will influence the success of partnering (Sanders, 2006). The highest level of administration at the parent organizations has great impact on the interorganizational coordination. The commitment to sharing resources or altering policies is associated with the administrators. When establishing a partnership, administrators cannot be exclusive (Beder, 1987). Collaboration is an enduring process between the partners. The members of the organizations should participate in joint efforts voluntarily and actively. The members will eventually undertake the missions relevant to the partnership. They are not selected just because they have time or because they volunteer reluctantly (Neal, 1988), but because they want to do it.

Knowing the partners is another issue with building up the membership. Collaboration increases the difference and diversity among the partners. Being open to and respectful of the differences will improve understanding and create opportunities for inter-organization collaboration. Usually, some identities of members or organizations align with stereotypes. For example, a faculty member in a university will be viewed as

an academic authority who does not understand the teaching practice in an elementary school. Judgment should be put aside when communicating or negotiating. It is a learning opportunity to have feedback or opinions from each other (Bergquist, Betwee, & Meuel, 1995).

The participants of the collaboration partnership need to devote energy and time for mutual benefit, understanding, and respect. The sense of self-interest must be strong enough to offset the costs of collaboration. Without an active attitude and positive motivation, the issues that come from collaboration--such as loss of autonomy, extra workloads, and the requirement of time--will undermine the partner relationship. Seasoned administrators will limit the collaboration to a manageable number of stakeholders (Mattessich, 2003).

### *Structure and Process*

One essential notion for collaboration is that all the partners understand and accept the process and structure the partnership will implement. In order to integrate the partners into the collaboration, an organization needs to remain somewhat flexible and open, able to adjust its methods or structures to meet the demands for joint efforts (Mattessich, 2003).

First of all, the members of the collaborative partnership have to understand the missions and goals for the joint venture. The more the members know the missions, the more confident they will be, and more willing they will be to commit in the process (Ravid & Handler, 2001). An organization has to compromise its original missions to a certain extent in order to accomplish the collaborative vision. Without clear missions, organizations will conflict with each other because of their different management styles, organizational structures, working flows, etc. (Berman, 1988). Reciprocal relationships are built on a foundation of common goals and mutual understanding.

When they share clear missions and goals, the collaborative partners can identify their roles and functions in the partnership. Usually the partners adopt different functions in the collaboration. Complementary functions are regarded as a critical factor for teaming up (Neal, 1988). Clear identification of the roles and functions for the partners will eliminate task conflicts as well as balance between compromise and autonomy. Failure in this aspect will generate potential risks for future collaboration, such as vicious competition or reluctant cooperation.

Conflicts will be inevitable in joint ventures because of the different interests and diverse backgrounds of the partners. Balancing interests and creating harmony will

become critical for the collaboration (Mohn, 1988). Negotiation will be involved in the balancing process. Basically negotiation must be constructive and lead to the mutual satisfaction of the partners. Berman (1988) summarized six principles for negotiation: prepare the priority among the common goals, strategies and conditions; set deadlines and timetables for accomplishment; develop trust relationship among the members; focus on areas of agreements and create mutual gains; handle disagreements tactfully; and summarize agreements and move forward.

Flexibility will help the partners to adjust themselves in the partner relationship.

Collaboration will bring change for the partners. In order to confront environmental hazards, internal ambiguity, or structural adjustment in the partnership, organizations should develop specific plans for change (Glowacki-Dudka, 1999). However, flexibility should not be confused with having only a vague sense of how things work.

Collaboration will be guided by clear missions and goals. Flexibility will help the partners to adjust their approaches for new conditions in order to sustain collaboration in the midst of major changes (Mattessich, 2003).



### *Communication*

Successful partnership relies on open, caring, and candid communication.

Members keep each other up-to-date, discuss issues openly, and convey information consistently in order to have consensus and rapport from the members (Bergquist, Betwee, & Meuel, 1995). Communication can happen in two ways. Internal communication helps the members of an organization to team up together and focus on the right track, while external communication eliminates misunderstanding and distortion with the partners (Neal, 1988).

In addition to communication at the organizational level, interpersonal relationships are critical for communication. Interpersonal relationships deal with the issues of commitment, quality, passion, personal connection, etc. (Glowacki-Dudka, 1999). By verbal and nonverbal interpersonal skills, members will establish trust relationships as well as conflict management and problem-solving ideas (Villa, Thousand, & Nevin, 2004). When trust is established, a collaboration relationship will remain flexible without falling apart (Bergquist, Betwee, & Meuel, 1995).

### *Purpose*

Participants need some specific directions in order to have successful collaboration. The directions can be interpreted as visions or missions, which should be long-term, broad, and doable. The common goals will activate strength and momentum as a partnership (Mattessich, 2003). Each partner may have its own vision, but a shared vision is essential in the collaboration process. Having common directions will help leaders integrate the resources, technology, and staff as a whole. Meanwhile, the participants will identify their roles and understand the future development.

Having leaders who are skilled in negotiating, comprising, and accomplishing tasks and goals is important for a collaborative partnership. Because partnerships often deal with sudden changes in the environment, leaders must anticipate changes and have the capability to cope with changes. In addition, leaders will confront the resistance from the members which do not engage in the collaborative decision-making process (Berman, 1988). Leaders also take responsibility for members' accountability. When leaders motivate and inspire the members, they will be willing to contribute their skills and knowledge to achieve the common missions (Villa, Thousand, & Nevin, 2004).

### *Resources*

Collaboration does not come cheap. Instead, it takes substantial, consistent funding and staffing. The partners must be prepared to contribute the staff hours and skills, fundraising efforts, in-kind support, etc. (Mattessich, 2003). According to Glowacki-Dudka (1999), the resources include funding, staff, institutional support, and time. In collaboration, each partner will gain something and lose something. The partners must gain more than what they lose to make sure the collaboration is successful. Resources, whether information or facility, should be fairly shared and transported (Beder, 1987).

In the last part, some tips for making collaboration for international educational work will be presented. At this time, there is a trend of globalization in economic, cultural, and governmental affairs, and academic development. In order to prepare students for the trend, educators need to make deeper commitments to international academic joint ventures. These tips were analyzed in a case of international collaboration by Godbey and Turlington in 2002:

1. Earn and keep strong support from presidents and provosts.

2. Identify key faculty at each participating institution who will passionately promote participation in the program.
3. Make sure that institutions have whole-hearted commitment to a long term test of program feasibility. Don't pressure reluctant institutions into joining the efforts.
4. Document the academic value added by the programs, and use satisfied students in your marketing.
5. Plan methodically, even if it means a later starting date for your project or program. Once you have developed confidence in the consortium approach, additional activities may be undertaken with greater speed.
6. Make sure all parties understand how decisions regarding the purposes, structure, operation, evaluation and future of the program or project will be made.
7. Make sure that participating individuals and institutions are properly insured.
8. Be prepared to terminate unsuccessful programs if they fail to meet their stated goals.
9. Make sure that the consortium or institution charged with administering the program can commit necessary staff resource: inadequate staffing and funding can lead to embarrassment for all.

## Summary

In the literature review, the attitudes and perceptions of faculty and administrators toward distance learning had been discussed. From the administrators' viewpoint, a bright promise of distance learning is financial support. Distance learning not only saves the cost of delivering material to the learners, but also reduces the expense of physical facility and equipment. Moreover, it will help to recruit and retain faculty. Even though there are many hidden costs, distance learning is still regarded as an economic tool for the administrators. Another issue is learning effectiveness in distance learning programs. The administrators believe that better use of technology will enhance learning. In addition to use of technology, some literature emphasized that instructional preparation and faculty commitment would impact the quality and effectiveness of distance learning. The administrators were also influenced by some current pressures based on social changes to implement distance learning. Three primary pressures were mentioned: technology, competitive, and workplace drives.

There were many reasons for faculty to participate in distance learning. Intrinsic motives and personal needs were mentioned in some surveys. The intrinsic motives included personal interest in technology and the motive to improve teaching and learning.

The personal needs are comprised of monetary reward and more release time. The inhibiting factors of not participating in distance learning were investigated in the literature, too. The primary factors included extra workloads, lack of training, and insufficient administrative support.

Seven categories of administrative incentives were analyzed from the literature: commercialization, prestige, personal gains, resources, technology, learning quality, and control. These incentives can become the framework to understand why administrators participate in and implement distance learning programs.

In the aspect of interorganizational coordination, the opportunities and challenges of collaboration were discussed. Basically, collaborative relationship will benefit the partners in: resources, strengthening the positions of the organizations, mutual gains and expertise, collaborative mindset, and organizational culture. On the other hand, three tensions of interorganizational coordination were listed: structural tensions, developmental tensions, and relationship tensions. Structural tensions can develop from the structure itself, from the use of time, and from the funding policy which helps to support collaboration. Developmental tensions arise in the evolving process of collaboration. Different expectations among partners, as well as bad management skills,

will influence interorganizational coordination. Relationship tensions occur between individuals and organizations involved with collaboration. The interpersonal interaction will impact the success of interorganizational coordination.

After discussing the pros and cons of distance learning, and the opportunities and threats of interorganizational coordination, some critical principles of implementing collaboration in distance learning programs are analyzed from relevant literature. An effective strategy for collaboration in distance learning includes six aspects: general environment, membership, communication, structure and process, purpose, and resources. These principles function as the lens for this study to explore how collaboration in the distance learning program is developed and implemented.

## CHAPTER THREE: METHODOLOGY

For this study, a qualitative approach was implemented. Gay and Airasian (2003) indicated that the focus of qualitative research is to provide understanding of a social setting or activity as viewed from the perspective of the research participants. Basically, qualitative research is useful for responding to questions about participants and context. Unlike quantitative methods, qualitative research provides more description and explanation. Also, qualitative research can be used to explore complicated research areas where little is known. For example, this approach will be suitable for beginning to understand a group or phenomenon.

Case study, one of the most commonly used qualitative research methods, was employed for this study. A case study provides an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community (Ary, Jacob, Razavieh, & Sorensen, 2006). An educational case study can be defined as an



empirical inquiry conducted within a localized boundary of space and time into interesting aspects of an educational activity, program, institution, or system. It is conducted in a natural context and within an ethic of respect for persons to inform the judgments and decisions of practitioners, or policy makers, or theoreticians (Bassey, 2002).

Unlike an ethnography, a case study needs to specify the theoretical propositions at the outset of an inquiry. The theoretical propositions can create a framework to understand the phenomenon or relationship in the context (Yin, 1994). For this study, the six categories of factor influencing collaborative partnerships and the administrative incentives for developing distance learning programs were the critical framework to explore the distance education administrators' perspectives. Since the study examined a distance education program as the lens to interpret the administrative incentives of collaboration, it focused more on the perspectives than the perceptions. Survey, which intends to describe the nature of existing conditions, or to determine the relationships existing between specific events (Fogelman, 2002), was not appropriate as the research method in this type of study. In addition, even though action research sometimes focuses on a case, such as a school, a hospital, a health clinic, a community agency, a government

unit, or environment, its purpose leads to program improvement and increased academic achievement for students as well as for the administrators and teachers (Howard & Eckhardt, 2005). The problem-solving orientation of action research does not match the purpose of the study. In a word, a case study with its intention to help researchers examine a setting, single subject, single depository of documents, or a particular event (Bogdan & Biklen, 2003) was an appropriate research approach.

### Purpose and Research Questions

The study examined the administrative incentives of interorganizational coordination in the INAC project, initiated at MSU in 2002. Through the lens of the administrators, the findings could provide a deeper investigation about why and how the INAC project has been established. Unlike the other studies focusing on the perceptions of the faculty and learners, this study tried to conceptualize the impact of administrator roles upon interorganizational coordination in the distance education programs. There were three research questions in this study:

1. What factors are considered when a university seeks to collaborate with other universities to extend educational opportunities through technology?

2. How do administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development, through the literature?
3. How does the INAC case compare with the findings from the literature?

### Research Design

In addition to research questions, Yin (1994) indicated that the unit of analysis is another critical component in the research design of a case study.

### *Selected Case*

The selected case was the International Network of Academic Collaboration, which was a consortium of universities around the world that had partnered to provide synchronous distance learning via teleconferencing technology. It provided an opportunity for an active, team-based format at separate sites in different parts of the world. The real-time interaction and audio-visual communication equipped the INAC project with special powers for collaborative and constructivist learning. It was a part of the i-Comm project funded in 2002. According to the website of this project in 2003, its purposes included providing a taste of studying abroad, enhancing faculty collaboration, increasing international exposure, and embracing diversity.

The INAC project was a project of global distance learning at MSU. Its videoconferencing technology improved the accessibility of MSU to reach overseas educators and students. Its technology featured instant interaction, which would not only benefit international collaboration, but also outreaching services and intercollegiate partnership. Especially when many research statistics indicated that the future growth of distance education in the field of higher education is promising (Piskurich, 2004; S. Levy, 2003; D. Valentine, 2002; Reindl-Johnson, 2005), the INAC project has been developed as a unique model of distance learning; it was launched six years ago. In order to enhance its performance, more academic investigation would be necessary.

### *Setting*

In 2002, MSU received funding from a major contribution grant for developing an international distance education project via telecommunication technology. As a result, the INAC project originated for this purpose. This study preliminarily explored the administrative incentives at MSU, the birthplace for this international distance education program. Because of limited time and resources, the perspectives of the overseas partners were not included in this study.

### *Research Sample*

Researchers often began their work with a conceptual idea of which group of people they wanted to study (Mertens, 1998). There are two ways to select the samples: probability sampling and non-probability sampling. The probability sampling strategies are created by a method in which the researchers can control and specify the likelihood of the selected people, while the non-probability sampling strategies do not have the control of the likelihood of any individual in the sample (Fogelman, 2002). In qualitative research, purposive sampling is another strategy which can fit in a relatively small sample to get the depth of information that is sought from each site or individual (Mertens, 1998). Since this study focuses on a specific project and group of administrators, purposive sampling was more feasible to select the study participants.

The participants of the study were the administrators in different levels who were connected to the INAC project. In order to have many voices from the representatives, a combined approach was used as the sampling strategy in this study. By combining the stratified approach with purposive sampling, the researcher deliberately sought a variety of levels of participants. Havice (2001) defined the administrators into three categories:

lower-level, middle-level, and upper-level. These participants were stratified by these three categories.

According to Havice's definition (2001), the lower level administrators included the heads and chairs of departments or schools. The middle level administrators were those deans and chairs of divisions or colleges. The upper level administrators could be the chief academic officers, provosts, and associate or assistant provosts. In order to balance the voices among these three categories, each category had at least two representatives. In all, there were eight INAC administrators engaged in this study. The names have been changed to protect their confidentiality. Allen and Brian, who respectively were the vice president and interim vice president for information technology, were the representatives for the upper-level administrators. There were four representatives from the middle-level administrators. Charlie was in charge of the computer services, which was relevant to the infrastructure of computer network. Daniel was the video network information center manager, who was associated with the technical support and instructional arrangement for distance education. Eric, who was involved in the aspect of program promoting and technology support, was from the international programs. Frank was a college dean. He also helped the outreach services

with the overseas universities other than subject matter exchange. The lower-level administrators included Harry and Gloria. They both were in charge of outreach services. For example, Gloria focused on China, Japan, and Taiwan, while Harry focused on Korea.

The former INAC coordinators were potential interviewees for this study, but the researcher could not reach them because they have moved out of this campus for other jobs. In order to understand the history and development of INAC, the researcher collected the strategic plan and other document instead.

#### Methods of Evidence Collection

The options for data collection in a case study may include tests, surveys, checklists, observations, record and document reviews, interviews, and so on (Mertens, 1998). Multiple sources of information help a case study researcher to have optimal understanding of the target. Also, the multiple sources help to clarify and judge the collected data for trustworthiness and consistency. For this study, two data collection methods were implemented, including semi-structured interviews and document review. Interviews directly target the first-hand information of the topic based on the insights of the stakeholders. Document review, including documentation, archival records, and

physical artifacts, can provide data with broad coverage in time, events, and settings (Yin, 1994). Although observation may be a good method for data collection, administrative work is difficult to observe. With three types of administrators as participants, observation would have not been feasible. It is very time-consuming, and some meetings are not open to observers. Furthermore, without an understanding of relationships among the participants and their colleagues, it is challenging to understand the culture and atmosphere in the contexts. Misunderstanding may cause research bias.

### *Semi-structured Interviews*

Interviewing, one of the most common and powerful methods to understand the society and the world, was the preferred method for data collection in this study. Even though it is not a neutral tool of data collecting, it will result in active interaction between an interviewer and interviewees, which will lead to negotiated, contextually based results (Denzin & Lincoln, 2000). Interviews can be used for understanding an individual or a group perspective. In this study, the researcher collected first-hand information from the administrators' perspectives. Interview data supported analysis for the first and second research questions. The researcher used the collected data to make comparison with the literature in order to answer the third research question.



Interviews include a variety of forms and a multiplicity of uses (Denzin & Lincoln, 2000). There are structured, semi-structured and unstructured interviews based on different types of questions. This study preferred the semi-structured interviews because of the intention to explore the administrators' perspectives. The structured interview may overly narrow the vision, as well as neglecting some facts. On the other hand, the unstructured interview will be too open-ended for focusing. Therefore, a semi-structured interview played the appropriate role, which allowed the narrative nature of free exploration about the contexts without losing focus.

The questions of the semi-structured interview were derived from the research questions. The twenty-one specific questions are listed as Appendix A. In order to ensure the clarity and precision of the questions, two pilot tests of these interview questions were conducted respectively on June 1 and June 4, 2007 with a graduate student and a faculty member at MSU. Each of the pilot study participants responded to these questions by role-playing as either a distance education program administrator or a department chairperson. The pilot tests were completed within one hour as expected, and the responses indicated that they understood the questions. In each test, the participants responded differently: one tester considered more of collaboration issues on the program

level, while the other centered on the course level. This finding helped the researcher to notice the different responses from the potential interviewees.

For the formal research, potential participants were contacted after June, 2007. By telephone and e-mails, the researcher reached the participants with the recruitment letter, which is listed as Appendix B. The final eight participants, who were selected by their willingness, were informed about the purposes, process, and methods developed in this study. Before the interviews started, they all knew they would be audio-taped and be given a pseudonym for identity protection. An informed consent letter, listed as Appendix C, was signed in the process by each of them. The interviews started in September 2007. Each of them was interviewed twice. The first round focused on completing the twenty-one semi-structured questions. The second meeting was conducted one week or so after the previous one, allowing the researcher to ask follow-up questions and find clarification of points made in the first interview.

### *Document Review*

Documents refer to materials such as photographs, videos, films, memos, letters, diaries, clinical case records, and memorabilia of all sorts that can be used as supplemental information as part of a case study whose main data source is observation

or interviewing (Bogdan & Biklen, 2003). Basically, documents can be defined as the mute evidence which endures physically and can be separated across space and time from its author, producer, or user (Denzin & Lincoln, 2000). In this study, document review assisted the researcher to understand the factual information, such as the history background, the promotion events, and so on.

Most of the documents were collected during the interview process. The collected data included the strategic plan of the i-Comm Grant, the proposal of the INAC project, the assessment plan of the INAC project, and some course syllabi. The website of the INAC played an important role to provide the background information in terms of the current project development. Some photos served as another kind of evidence for the interaction in some joint classes. These documents did not only function as the supplementary material for understanding this project, but also provided an opportunity to compare with the interview transcripts.

### Trustworthiness and Consistency

Because of different paradigms, qualitative research and quantitative research take different stances in terms of validity and reliability. In order to address these two critical issues, qualitative researchers replace validity and reliability by other terms. Validity is

replaced by trustworthiness, and reliability is replaced by consistency (Denzin & Lincoln, 2000; Wiersma & Jurs, 2005).

Some criteria for judging the quality of qualitative research include credibility, transferability, dependability, and confirmability (Mertens, 1998). Credibility, paralleling internal validity in post-positivist research, focuses on whether there is a correspondence between the way the respondents actually perceive social constructs and the way the researcher portrays their viewpoints. In this case study, the primary verification method was member checks. The interview transcripts were electronically sent back to the participants in December, 2007. They reviewed the transcripts and verified them by January, 2008. Only some wording or rephrasing had been made by the interviewees, which made the transcripts more readable. The researcher corrected the transcripts based on their responses.

Transferability was like external validity in post-positivist research. In this study, there was only a case investigated. In order to enhance this aspect, the researcher tried to provide thick description, including the time, place, context, and so on. In terms of dependability, as reliability in quantitative research, the researcher did the pilot tests before the interviews. In addition, the researcher kept each step of the inquiry process for

checking. Finally, confirmability means that the collected data and the interpretation are not from the imagination of the researchers. The researcher followed the IRB protocol (as Appendix D) to assure that all the data would be tracked back with the limited time, and the interpretation log was explicit.

### Data Analysis

Analyzing the qualitative data was an overwhelming task because of the richness of the data from the perspectives and understandings of the participants. The researcher summarized the collected data in a dependable and accurate manner. In a word, the researcher sought to make sense of multiple data sources in this data analysis process (Gay, Mills, & Airasian, 2006). The work of qualitative data analysis begins from the initial interaction with the participants and continues through the entire study. The guide to qualitative data analysis consists of six elements: defining and identifying data, collecting and storing data, data reduction and sampling, structuring and coding data, theory building and testing, and reporting and writing up research (Cortazzi, 2002). The previous three elements are called formative analysis, which reflects the epistemological and ontological aspects of qualitative research. After transcribing the interviews, the researcher made sense of the documents by reading, rereading, and reviewing them.

### *Strategies of Data Analysis*

There are several data analysis strategies. One of the most frequent data analysis strategies is coding, which is the process of categorizing or referencing the collected data into the units of text with codes and labels as a way to indicate patterns and meanings.

Identifying themes emerged in literature or collected data is another strategy of data analysis. Qualitative researchers have to consider a big picture and identify the repeating patterns or key phrases (Gay, Mills, & Airasian, 2006).

These two strategies were selected for data analysis in this study. The researcher used the strategy of identifying themes to classify themes from the relevant literature, which became a framework of comparison responding to the third research question. The coding strategy could effectively reduce the data to a manageable form, as well as identifying the similarities among the participants' responses. This strategy helped the researcher to interpret the answers to the first two research questions.

### *Process of Data Analysis*

Coding is critical to whole-text analysis because it is a process of organizing a large amount of data into smaller segments. Researchers can easily manage and retrieve these text segments, and judge the meanings of segments of text (Bailey, 2007). The

process of coding can include these tasks: sampling, identifying themes, building codebooks, marking texts, constructing models, and testing models (Ryan & Bernard, 2003).

There were eight participants in this study. From the interviews, all the data was transcribed. The interview transcripts were the sample for analysis. Themes are the abstract constructs identified by researchers before, during, and after data collection (LeCompte & Preissle, 1993). In this study, some themes were derived from the literature. For example, the collaboration issues for joint program development could be summarized into the aspects of planning, objectives, technology, budget, promotion, and evaluation. Another theme coming out from the literature was the administrative incentives. In addition, the texts and the researchers' experiences were another primary source for identifying themes (Ryan & Bernard, 2003). The researcher found out that the project development and future development of INAC were the examples for these kinds of themes. The themes are better described and articulated in chapters 4 and 5.

When marking and analyzing the texts, the researcher used the open coding technique to identify the potential themes by pulling out the examples or incidents from the text. In order to manage the huge amount of texts, the researcher first cut up the

transcripts based on the interview questions. These pieces then were pasted on the boards with different colors for further analysis. This task was to assign the codes to contiguous units of text (Langenbach, Vaughn, & Aagaard, 1994; Ryan & Bernard, 2003). After marking texts, researchers could easily retrieve or index the text segments because they could locate the keywords or repeating phrases in text (Miles & Huberman, 1994). The constant comparison method was the common technique to link the emergent themes in theoretical models (Dye, Schatz, Rosenberg, & Coleman, 2000; Bailey, 2007). The researcher compared the incidents applied to each theme. After refining the properties of the themes, the researcher used the axial coding technique to integrate the codes around the axes of the central categories. In a word, the researcher built up the connection between the themes and sub-themes (Ezzy, 2002; Miles & Huberman, 1994).

In this study, all the incidents had been organized into three primary themes: administrative incentives, project development, and collaboration issues. The administrative incentives included what and how the factors influenced the administrators' motivation of joining the international collaboration based on their perceptions. The second theme was project development, which provided the basic introduction of this case. In addition to the history and development, this theme also



consisted of the expectations, achievement and obstacles, and future improvement. The last theme, the collaboration issues, focused on the factors relevant to the program development. It explained the coordination of course planning, budgeting, technology, promotion, evaluation, and so on.

### Writing the Results

The data analysis duration lasted from January to March, 2008. Then the researcher moved to the stage of writing the findings. When constructing an argument based on what has been done or experienced, the researcher gave each part of the argument different weight. All of these constitute a final round of analysis (Cortazzi, 2002). This stage began in April, 2008.

### Summary

This chapter discussed how the researcher embarked on the data collection and analysis for this study. Adopting a qualitative approach, the research method was a single case study, which focused only on the INACT project at MSU. The participants were purposefully selected as administrators engaged in this project. There were eight participants willing to join the investigation. Two of them represented the upper-level

administrators. Four of them were middle-level administrators, and the other two were from the lower-level.

In order to collect data, semi-structured interviews and documents reviews were implemented. Each participant was interviewed using semi-structured interviews with twenty-one questions. Then a follow-up interview was conducted to clarify and expand on the information provided previously. When the interviews started, the researcher got the permission from the participants to audiotape the interviews. Meanwhile, the researcher also collected the relevant documents from the interviewees.

The interview transcripts were the text for analysis. These transcripts were sent back to the interviewees for verification. Then the researcher used the open coding technique to form the themes. By the constant comparison method, the researcher gradually integrated the theme axially. The themes were integrated into three categories: administrative incentives, project development, and collaboration issues. The last step was to write the paper.

## CHAPTER FOUR: FINDINGS AND RESULTS

This chapter presents the findings from the interviews and document analysis. It contains the collected ideas and perspectives from the participants. This study investigated the factors that influence the international coordination for the INAC program and how these factors affect the program development based on the perceptions of the administrators. The case of INAC at MSU was used as the lens from which to examine the impacts of these factors. Eight participants from this project were engaged to reveal their perspectives of the international academic joint venture. Pseudonyms were given to protect their identities. Allen and Brian represented the upper-level administrators. They held the positions as provosts for information technology. Charlie, Daniel, Eric, and Frank were the middle-level administrators. Charlie was in charge of the computer network services, while Daniel was the director of the video network information center. Eric worked in the international programs, and Frank was a college

dean. The last two, Gloria and Harry, were the lower-level administrators. Their work was relevant to developing partnerships in the specific areas. Interviews and document analysis were completed in order to answer these research questions:

1. What factors are considered when a university seeks to collaborate with other universities to extend educational opportunities through technology?
2. How do administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development?
3. How does the INAC case compare with the findings from the literature?

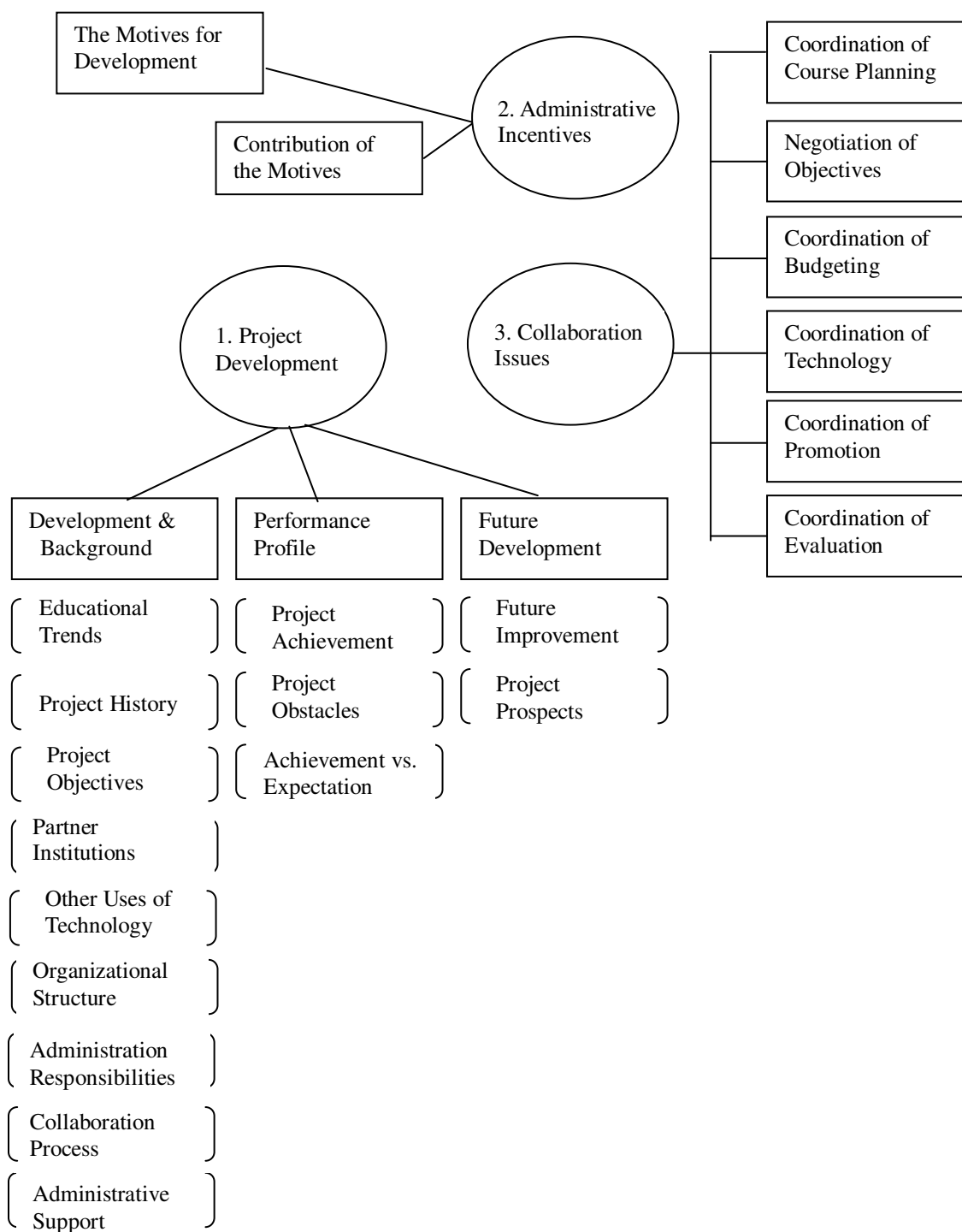
For this study, the researcher developed twenty-one questions for the interviews.

These questions help the researcher to explore the INAC administrators' attitudes and perceptions on international collaboration for distance learning. They included questions about participation, motivation for cooperation, incentives, achievements, obstacles, work processes, and issues of coordination with other institutions. For a complete list, see Appendix A.

The findings of this study are presented in three sections. The first section is relevant to the project development. It includes the background information of the project

development, the current performance profile, and the future improvement and prospects. This aspect provides the holistic picture of the INAC project. The second part examines the administrative incentives of this project. The participants shared their perspectives of motives toward this project. Here the researcher examines how these motives influenced their participation. The final section relates to issues of collaboration. The issues were derived from the literature review and confirmed by the case, such as objectives, technology, budgeting, evaluation, and promotion. The three sections are shown as Figure 4-1.

These findings were organized in these three sections to provide the readers a picture, by which the readers can understand why the INAC project was initiated and how this project cooperated with its overseas partners. The incentives of developing INAC are examined, and the factors relevant to interorganizational coordination are reviewed to explore its impacts. The research questions will be discussed in the following chapter with the comprehensive understanding of the INAC project.



*Figure 4-1.* The diagram of the themes: Administrative incentives, project development and collaboration issues.

## Project Development of INAC

Since the case being examined in this study was the INAC project, it was important to understand its operation and development. Then, the researcher illustrates the current performance and operation of this project. In the last part, the researcher collected the participants' perspectives of the project future.

### *Development and Background of INAC*

This section introduces this project by providing the background information of its development in the first place, including: educational trends, its history, goals, partners, other uses of this technology, structure, administrative work, and collaboration process.

#### *Educational Trends*

Before starting the discussion of the administrative incentives of the collaborative project, Allen explained the emphases on the educational trends of globalization and information communication technology. He claimed that the contemporary world has become a global village. People cannot avoid the cross-cultural impacts. The advancement of information communication technology enhances the interaction among people from different places and share information and experiences in a fast tempo. These two trends have critical influence on the field of education, especially in terms of

distance education. These two issues were emphasized on the campus and provided the general explanation of the context in which the INAC was initiated.

Globalization. Allen emphasized that the students on campus have grown up with the trend toward globalization. Globalization encouraged students and faculty to begin to understand other cultures and collaborate with international partners. Administrators and faculty have to be aware of this trend. They help the students to build skills to collaborate with the learners from different cultures. Therefore, the INAC project provided opportunities to interact with other cultures through the interactive experience of videoconferencing.

Even though the upper-level administrators displayed interest and emphasis for international exchanges at MSU, Harry, a faculty member as well as a lower-level administrator in INAC, indicated that recently it got less attention. For example, fewer international activities took place as compared to five or six years ago due to the lack of a project coordinator. Fewer resources and financial support were invested than in the beginning. Currently, fewer faculty members participated in INAC, even though some programs with Korea, for example, still ran well. Harry suggested more investment, such as the attention from the upper-level administrators and financial support, would be



helpful for the development of internationalism on campus in many aspects, such as recruitment, promotion, and so on.

Information and Communication Technology (ICT). ICT has drastically changed the world. It expands the capacities of people to do new things, solve problems, communicate with others, stay current with the issues of the day, and much more. Many people who use technology take advantages and convenience from the innovative tools for granted. In order to implement technology in education, administrators have to support the development through resources, political will, and incentives to those who will use it. MSU developed INAC and videoconferences to facilitate learning because its internet infrastructure allows the participants real-time interaction with partners overseas as they have classroom discussions. The MSU upper-level administrators regarded videoconferencing as the most economic and feasible means to have synchronous interaction in a cross-cultural setting. The faculty and learners can have face-to-face communication without going abroad. The joint courses help the participants to exchange experiences and understand various cultures. Even though not every country can afford this technology, the upper-level administrators of MSU still decided to adopt this technology to achieve this international academic joint venture.

The INAC was initiated as a response to globalization and its impact on higher education. Allen, the vice president for information technology, emphasized that it was impossible to be isolated in the world today. MSU sought a way to expand the personal history of learners to the world. In order to respond to the globalization trends, technology became the most feasible and economic approach. In 2000, MSU decided to implement digital media and technology for long distance outreach.

The INAC project was a part of the i-Comm grant proposed in 2000. The primary goals of the i-Comm grant were to look at 21<sup>st</sup> century learning and the role of digital communication and media. It provided preliminary financial support to the development of INAC in the beginning phase. There were five goals identified in this grant. They were:

1. Shape and understand the new contexts in which global entertainment, information, media, and communication are merging.
2. Produce professionals for leadership in digital media content production and management.
3. Support the growing industries in digital media technology.

4. Enhance the human and technological infrastructure for media and communication technology industries in Indiana.

5. Provide local and global educational opportunities to learn through new media, and create new learning environments through media technology.

It seemed that the fifth goal was directly relevant to the INAC project. The other goals were relevant to the other aspects of this project. The other projects funded with this grant included developing a program of converging digital media or a local media center. Each of the goals developed its subordinate objectives. The fifth goal had three objectives: supporting the development of e-text modules for courses throughout the curriculum; constructing a dedicated two-way broadband communication capacity with international partners to support seamless global learning; and promoting adoption of the term “i-Comm.” In the assessment plan of this grant, there were four ways to measure the two-way communication capacity with international partners. They included: establishment of a system, frequency of system use, faculty assessment of system quality, and student assessment of system quality.

In order to run the INAC project, a unit was created to build international, personal, and technology-based learning environments for enhancing international

educational and business partnerships. A director was selected to oversee the relevant programs, such as globalization studies, the global media learning environment, distance learning, and so on. The director had to report to the leadership group of this i-Comm grant. This role fell upon Ivan, who was also one of the proposal writers and original team members in creating this project. He was the former dean of the College of Communication, Information, and Media as well as the first director of the INAC project. Ivan left that position two years later to move to another school. Unfortunately, the two coordinators who took over did not stay long. One went overseas, and the other passed away. Since 2005, INAC has been was running without a coordinator for the committee. As of 2008, MSU was still searching for the appropriate candidate for this position. The lack of a coordinator seemed to postpone the development of INAC. Many administrators indicated that there were no clear objectives for future development, lack of coordination for resources, and less communication among the administrators.

### *Project Objectives*

The long term and short term objectives for INAC were initially incorporated in the strategic plan. Brian explained that there were two particular elements cited in that plan. One was to increase the international experience of students, and the other was to

create a strong technology experience for students. He also mentioned that the departments and units on campus were asked to implement that vision. Allen also supported Brian in this respect:

The idea is to maintain connections with the rest of the world. From the technology side, which is my responsibility, we want to make sure that we maintain the technology that allows that world connection to take place....My hope is that we will continue to reach out, continue to have both academic endeavors on a collaborative scale, but also that we have just exposure to other cultures.

The middle-level and lower-level administrators had different interpretations of these objectives for the INAC project. Most of them indicated that they did not get clear information about the long-term and short-term objectives of INAC. They all developed their own objectives based on their positions and their assumptions without guidance and direction from the INAC committee. Daniel was one of the examples:

Since I'm on the technical backside of it, I really don't know what the goals of the short and long term are. I know from the technical side our goal is to make sure to

provide fast, quality, and conferencing studios, and technology available that will allow us to connect worldwide.

Even though the middle-level and lower-level administrators did not get a clear picture of these goals and objectives, they all developed their own objectives to guide their units. They usually communicated with the upper-level administrators by their reports. They assumed that their supervisors would understand the progress and development of these units. In addition, the middle-level administrators talked the objectives to their colleagues in the regular meetings. These meetings became the official way to communicate the objectives in their units.

#### *Partner Institutions*

Overseas partners came from all over the world: Turkey, Egypt, Spain, Sweden, Brazil, Germany, Venezuela, China, Japan, Korea, Thailand, Nepal, and so on. The partnerships were established based on their collective interest and willingness. MSU did not set up the selection criteria for the collaborative partners. Some administrators of INAC were assigned to be in charge of outreach to certain areas. This arrangement was set up because of their relationship or resources. So far, there were 42 partners participating in the joint venture.

*Other Uses of the Technology*

INAC was based on videoconferencing and internet technology. In addition to international distance learning, INAC was also used to promote the university at college fairs. MSU broadcast the live-video college fair via videoconferencing with six different Middle Eastern countries three times. Another function of INAC was to recruit students, especially overseas learners. By using technology, the faculty could introduce MSU to the perspective students more efficiently and interactively. This use of videoconferencing demonstrated a successful model of recruitment. Allen indicated that INAC was the technology used for administrative and business purposes as well as academic and cultural purposes:

We want ultimately, for people on this campus, to be able to feel that they can reach out to other people anywhere in the world, anytime they want to interact with them....We're using in addition to academic kind of activities, in addition to kind of cultural exchange activities, we use it for administrative activities as well. If we've got a person who's interviewing for a job, well, do a videoconference interview before we even bring them to campus to make a determination whether it's appropriate to bring them to campus. Those are just regular kinds of things we

do. We have actually used the videoconference capabilities to consult with other universities or the administrators about how they solve specific problems. The videoconferencing is a good way to do that. We actually use the videoconference capabilities as ways to interact with business in some of our business partners.

### *Administrators' Responsibilities*

As INAC developed, the administrators faced a variety of tasks and responsibilities. When in the planning stage, the upper-level administrators played the role of developing the primary concepts. When INAC was ready to launch, their job became implementation. They included providing the infrastructure, the equipment, and the facilities which made the project happen. The middle-level administrators were involved to provide support or develop contacts. The campus units which provided technology support set up the network infrastructure and equipment to run the videoconference for INAC. Without their assistance, the interaction between the partner universities would fail. In addition, establishing relationships and developing contacts with partner universities were the jobs of the middle-level administrators. These kinds of middle-level administrators usually had some overseas resources or connection. With their assistance, INAC developed partnership and promoted the program with overseas



partners. In terms of lower-level administrators, their work was related to developing contacts with certain areas. They were involved in developing and implementing collaboration plans with the overseas partners in specific areas such as Middle East, East Asia, South America, and so on.

INAC began as part of a grant. The upper-level and middle-level administrators were involved through their positions. However, there were other motives that encouraged the administrators to continue supporting INAC. The upper-level administrators indicated the impact of technology to education was an interest for them. Most of the middle-level and lower-level administrators addressed their interest in international exchanges or communication with people from other cultures. INAC provided a good opportunity for international partner outreach. They believed that INAC could be an easy and effective approach to embrace the globalization trend nowadays.

### *Organizational Structure*

Allen identified that there were three dimensions of running the INAC project. They were the colleges on the campus, the distance education program, and the computing services unit. The dimension of the colleges on campus served as its academic side. INAC was connected to the provost office and each of the college deans where the

courses resided. They determined whether the exchanges were for academic credits or only as part of regular classroom activities. The second dimension was relevant to the distance learning program because of videoconferences. The computer services unit was dealing with the outreach to the partner universities. When establishing a partnership, the computer services staff had to first configure the network and firewall on both sides.

Allen explained why the university decided to run the INAC in this way:

Basically, to run INAC, you need infrastructure and support to make it go. The content and the information that transfer happen in all these departments. The content that's exchanged could be personal and be tied to department wherever. But to make the network run, it's got to have a broad institutional support to do that. There are existing units on campus....that participate in running all kinds of infrastructure support across campus. So we just simply assign those responsibilities to those existing units, rather than another layer of administration to support to that person.

Is this distributed structure the best strategy for INAC? The administrators had different perspectives. Allen and Charlie would like to keep the current organizational structure. Allen explained that this structure was derived from functional

compartmentalization. No single unit would determine the directions for the network. The three dimensions, academic, technology, and distance education, should all be involved.

Charlie described the issues between responsibilities and functions:

The problem is that if you make everything collective, then in the end no one is responsible for anything. You have the anonymity of being in a group. 'Well, I'm not really the responsible person... The other person will handle the problem.

Although I believe we need to have the relationships between functions strong, I don't believe that a collective group with a generic responsibility ever works because in the end no one is responsible for anything.

Some administrators had the opposite perspective. Brian, Frank, Eric, Daniel, and Gloria indicated the centralized structure might be a better way to run the INAC project.

Brian thought the centralized structure could be more effective when all the functions were integrated together. He thought this approach was like franchising. Eric, Daniel and Frank indicated that a project coordinator would be found out when there is a center or unit, which is in charge of the project. For example, Frank provided the example that nobody was marketing this project or recruiting new faculty. He also thought that having

a center or an office would help to get funding. Frank thought the INAC project really needed a coordinator to guide the future development:

You need somebody who's responsible and in charge. Right now there's not.

There's nobody in charge. So, there needs to be a single office which is in

charge.....I think that the current model is that there's nobody encouraging

anybody to do it, there's nobody marketing it, there's nobody recruiting new

faculty. It's just sort of word of mouth. There's nobody asking faculty what kind

of experience you had. Was it good or bad?

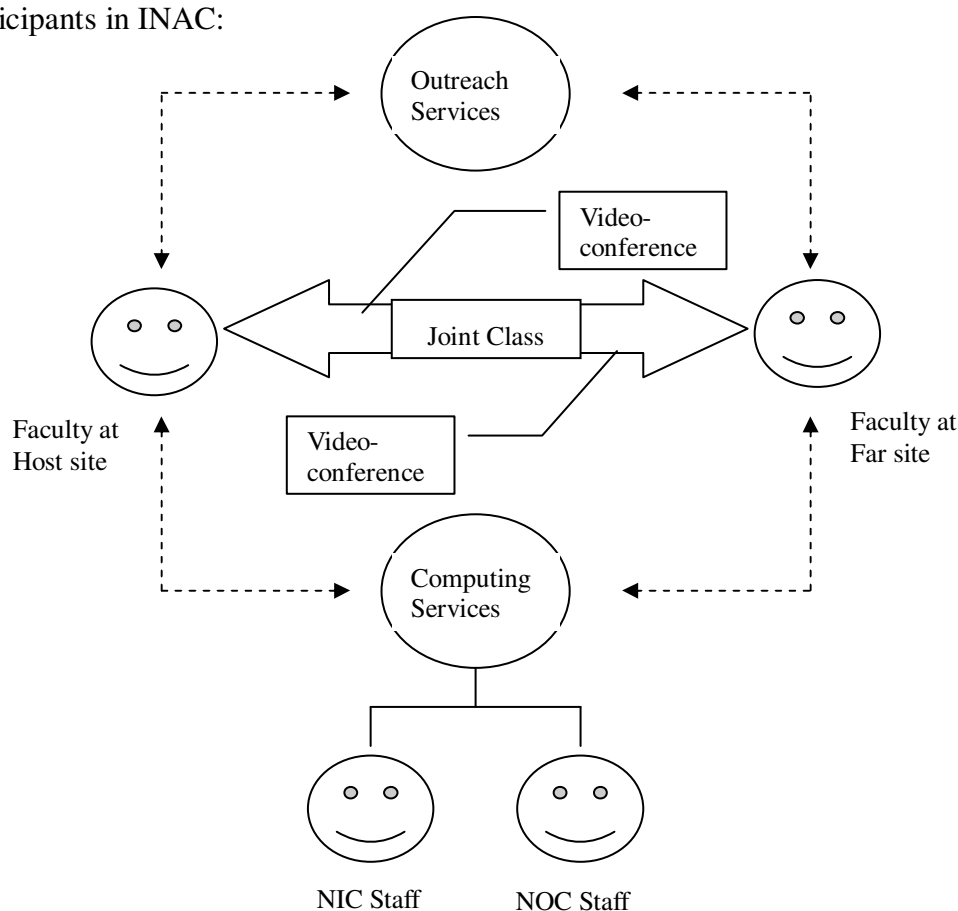
#### *Collaboration Process*

At the current time, it was clear that INAC was led and run by the technology support unit on campus. Videoconferencing technology was the primary way for delivering content and setting up interaction. In order to run the videoconferences internationally, the technology support unit had to be in charge of the infrastructure. One of its responsibilities was to certify the appropriate facility at the remote site, as well as the host site. At MSU, there was not only the broadband network, but also some specific classrooms installed with videoconferencing technology and digital media.

In addition, the technology support unit on campus helped the faculty members to deliver the content. There were two functions from the computing services on campus. They were the NOC (network operation center) and the NIC (network information center). NOC was in charge of the network infrastructure, while NIC was the help desk. Both of them provided technology support to the participants, but in different respects. NOC usually worked on the back end of the network system. The engineers from there would ensure the connection between the host site and remote site. The NIC provided the faculty assistance of setting up videoconferences, implementing technology, and doing technical problem-shooting.

The content was decided by the instructors, the chairpersons of departments, or the deans of colleges. These people also decided the instructional design of their courses. Course planning would usually occur one semester before the class started. The co-teaching instructors could decide the subject matter, learning objectives, issues of concurrent sessions, and evaluation criteria via e-mails or phone calls. If the faculty already had overseas partners, he or she could directly establish the collaborative relationship. The university could assist those faculty members who had the will to develop an international collaborative course but had no targets to contact. Some

middle-level and lower-level administrators were capable of helping these people to establish the relationship. The following figure (Figure 4-2) demonstrates the functions of these participants in INAC:



*Figure 4-2.* The collaboration process of course planning in INAC.

When a faculty member decided to do an INAC course, the first step was to contact the remote site partner. If that faculty member did not have any target, the middle-level or lower-level administrators could help him or her to find one in an overseas university. E-mails, phone calls, or sometimes the videoconferences, could serve

as the primary communication tool for the faculty. Meanwhile, this faculty member could contact the NIC staff for technology support. The NIC staff could also provide on-site assistance in that class for operating media or technical trouble-shooting. Unless there were the network obstacles which were beyond the NIC staff's capability, the NOC staff would monitor the infrastructure working in the back end of the system. Since the network system had been established, the computing services staff was not regularly involved in meetings with the faculty members for course planning.

The full INAC committee has not met since the former director left in 2005. Before the director left, the administrators had to participate in the regular committee meetings for reporting current growth and discussing future development. Although the INAC administrators rarely meet formally, the technology staff still has regular, weekly meetings. They do weekly checks of the INAC technology, and also report the growth of those courses annually. The communication among the administrators is informal, including phone calls, e-mails, or personal contacts.

#### *Administrative Support*

When asked about administrative support, the two upper-level administrators did not identify any specific funds or resources designated for INAC. Both of them believed

that there were resources or compensation for faculty involved in INAC. This was partially accurate. They both mentioned that the administrative support in this respect may come from the office of the provost, the dean, or the chairpersons. Brian indicated that the INAC was used as a means to achieve some goals or objectives:

I don't know if there are specific funds or resources that have been identified. I know that the goals and the objectives like the international experience and use of technology are out there. Every department is supposed to provide some interpretation or translation on that and how they plan to meet those particular larger goals with international programs and whatever. I can see them using INAC as a way to satisfy those goals. But there are resources set aside. I assume by the provost's office or the dean's office, or the department chairs will do that. I don't know if there's any plan, but I would guess that: 'Here's the goals, now make available resources that you have available to you in your units and let's hit these targets, hit these goals.'

Allen indicated that training and technology support were substantial parts of the administrative support:



There are a number of ways. One is we provide the infrastructure to make it as transparent as possible. Two, we provide as much help as they need for their activities. So if you need somebody to come in and be in your classroom, run the videoconferencing for you, switch cameras when you want them to, we provide a person to do that. Three, we provide training so that they can learn to do those things themselves. And four, we provide coordination efforts so that if you just said it would be really nice if I could have the person who's doing the most research in molecular biology today, if you need help in coordinating with that person being able to set up a videoconference, we'll provide that for you as well. So there's a large infrastructure.

The technology training sessions, provided by the library and the office of teaching and learning advancement, were built for the project to prepare faculty involved in teaching via videoconferencing. The purpose of these training sessions was to help the faculty to use the technology, prepare the setting for distance learning, and develop learning strategies. In addition, the NOC and NIC staff provided the technology support for faculty in INAC. Daniel explained the technology support they provided:

It's really quite simple. We have forms online that people can fill out and say that they want to do a videoconference. They contact me for basic information. I usually call them within 2-3 hours if I can. My first question is 'Why do you need to do a videoconference?' Sometimes they're pretty quiet when I say that. There's a pause because they're not ready for that. They're ready to hear, let me show you what you want. But I want to make sure first that I'm giving them the necessary tools they need. Sometimes they realize well, you really don't need to see the people. You can do it by telephone conference. But most of the time, they want the interaction.

The middle-level and lower-level administrators believed that financial support was important to complete the goals of the program. In order to build up the partnership of INAC, the administrators believed that financial support would be beneficial for searching for the overseas potential partners. The following was Frank's perspective of administrative support for INAC:

Well, I don't really think much. I don't really think...I mean those technology guys have done a very good job. The technology support is very good. But I mean in terms of like when I think of administrative support, I think of somebody in

international programs or somebody else has a pool of funds. I think that there was for a while some money to support faculty develop these. But that disappeared so we don't have that anymore. I don't know.

Eric mentioned the value of developing partnerships or shared resources. He thought providing a stipend could be an incentive to encourage faculty to participate in INAC. Daniel provided an example from his personal experience to support this viewpoint:

I know with distance education. In general, the fellow who started it here at this campus told one time in a very large meeting that he made a mistake. He brought faculty members in, paid them stipends to do the training about how to do things on their own. Once they learned how to do it, and the stipend money was gone, they didn't want to do it anymore. He had not built any method where they had incentive to keep doing it. Because people want incentives to do anything, whether it'll be for tenure or time off to do research, they want to have that available to them. He said that's where he made his biggest mistake, but it still runs. It still works very well. That would be one thing he wanted to add if he did it again.

The lower-level administrators agreed that the stipend support would attract more faculty to be involved in INAC. Harry indicated that the faculty would develop more linkages with the overseas partners when the administration was ready to support them. Gloria also considered the stipend as an incentive to encourage the faculty to join INAC:

It would be great if there was more financial support for teachers who decide to do INAC. It would be great if we had a better tie-in to the student exchange program and the INAC courses...I think INAC could be an excellent marketing tool if it was used as such. But it's hard when you have teachers doing all their courses and trying to market INAC for somebody else then doing their other research and projects. You need more administrative support there. I am positive as soon as the vice-president says 'we'll give an extra \$10,000 to those professors who do this, people will come out of the walls.'

According to middle-level and lower-level administrators, the current administrative support did not match their expectations. In the future, they looked forward to more financial support. In order to get the attention from the university, Harry and Eric mentioned that INAC needed to encourage more faculty participation. With

increasing awareness and attention, INAC would ask for more resources and support from the university. Harry explained:

The reason is if the administrators recognize the importance of global education, then they should put more resources into it. At the same time, an administrator may say:” If you get more faculty interested in doing it,” they will give you more support. We need more faculty to get involved, then you can ask for more support from administrators.

### *Performance Profile*

This section describes three aspects of the current performance of INAC. The performance profile recorded the achievements and obstacles that the participants in this study perceived. The last aspect was whether there was a gap between the expectations and achievements from the participants.

### *Project Achievements*

When mentioning the achievements of INAC, the administrators had various viewpoints. Increasing the opportunity of international exchange for the students was a common ground for five out of eight administrators. Through videoconferences, the students could interact with other individuals overseas. Some INAC courses would help

the students to increase their understanding of cultures and foreign languages. According to three administrators, the students who enrolled in INAC courses enjoyed this kind of class.

Upper-level administrators measured the achievement of INAC in many ways: having good relationships with businesses, bringing in experts from around the world, and encouraging faculty to use technology. The achievements can be extrapolated based on the objectives from the strategic plan of INAC. Some middle-level administrators emphasized the use of videoconferencing technology for other events as the mark of achievement, such as presentations or recruitment. Eric explained that six out of 24 international students came to MSU for study after joining the college fair videoconferences. Daniel said: “the course increased 400% in the past 3 years, and kept growing.” This statistic functioned as an indicator for the achievement of INAC. The lower-level administrators believed that INAC provided a good opportunity for international exchange for the students. It seemed that the administrators had various indicators for the achievement of INAC.

*Project Obstacles*

Technical difficulties were considered as the main obstacles for INAC based on the perspectives from the upper-level and middle-level administrators. The overseas partner might not be able to afford the equipment required for videoconferencing. Even though the equipment was ready at the distant side, the low bandwidth might cause a bad connection. In addition, firewalls were a big concern because some partner institutions did not open it to connect with the course. The technology staff had to reconfigure it for video interaction. In some areas, the partners might take the equipment down after class for security reasons. This move would prevent the videoconferencing equipment from being stolen. However, the equipment might not work properly after repeated reinstallations. Technical issues often undermined the international collaboration because of access limitations, appropriate equipment, or consistent connections.

Time was another concern mentioned by most of the administrators. Since the institutions on the distant sides came from different time zones, the faculty and students had to prepare lessons far in advance. Scheduling communication for the faculty and students seemed more challenging than for traditional classroom courses. In addition, the semester length of these collaborative partners might be different. It meant there were

only some concurrent sessions in a semester. The faculty had to consider this in their curriculum planning.

A lower-level administrator emphasized that the key to INAC was having faculty volunteers. Developing an INAC course was more time-consuming and energy-taking than a regular one. The faculty had to be willing to incorporate technology into their courses for international venture or diversity. How to encourage faculty members became the big promoting issue of INAC.

#### *Achievements vs. Expectations*

The upper-level administrators were generally pleased that the INAC courses provided cultural immersive opportunities to the students. Comparing their personal objectives with the achievement of INAC, they considered that the videoconferences achieved the original objectives. Allen thought this technology had been implemented on campus as a communication device. Brian was satisfied with the development of this project. Personally, Allen would focus more on transparent technology that was easy to use. On the other hand, Brian had a different focus. He expected to see more usage of this kind of class:



The expectation when we first did this was that there would be higher number of usage than we are receiving, that it would be more invasive, that every class across campus would be engaged. If there was a disconnection between expectations for me, it's that the usage was less than I expected. It was simply not a data driven expectation, but simply an expectation based upon the idea of reaching out and the way learning was moving in the 21<sup>st</sup> century that most faculty and students would want to have this external wider engagement with folks across the world.

The technology at times was difficult to manage. Brian thought the technology was too difficult to use and did not always deliver the content that the faculty members wanted. For example, the audio and video were sometimes not up to par, and sometimes the video had problems, or sometimes it was hard to share the files requested. Allen perceived this challenge, and he usually advocated for improving the technology. For example, he would always look for different kinds of video cameras, less complex camera hookups, faster network connection, and so on.

In regards to matching the organizational objectives with this project outcomes, improving the technology and getting more people involved were the common objectives for the upper-level administrators. Allen's explanation was right on target:

Well, the original goal was to build a network that allowed us to communicate around the world. That's been met. The next level of the goal is to make it used by more people, and to become more transparent or easy to use. We're constantly working in that direction. Some of the prohibitions is some of the technology hasn't quite gotten there yet. That's one. The other is the one that I mentioned before: in order to communicate the people at the other end, they have to have the same level of expertise, they have to have their network available. We're working through those problems so we have to continue to help others configure their networks.

Just like the upper-level administrators, the other administrators all agreed that INAC provided the student the international communication experiences that achieved their objectives. Although the INAC courses did not provide the same richness as travel, Frank still considered that it was a good opportunity for the students who were not likely to travel over the world. Daniel, Gloria, and Harry also had the same perception. The

INAC could allow the interaction between the students at the host end and far end. In addition, Eric considered the INAC technology as an effective tool to recruit more international students, or give local students motivation and opportunities to go abroad. .

Even though the INAC courses matched their personal objectives in a sense, the middle- and lower-level administrators were concerned about whether this project matched the organizational objectives. Daniel and Harry pointed out that the university did not pay enough attention to the INAC project at current time. It seemed that right now this project lacked organization. Charlie gave an example of this:

Everybody pushed really hard to get the remote faculty involved. We even had board meetings where technically we had somebody here; and, we had somebody there. We had active discussions on how to make this work and make it successful and how to get this connection to a remote point actually working and have a classroom. Daniel may be involved in that, but I 'm no longer involved in the "how we go to the next level" discussion. I don't think those discussions take place to the degree that they did early on and I think that's unfortunate.... If I had to say that, in its best time, on a scale from 1 to 10, the expectation we actually hit an 8. We're probably at a 4 right now, which is under average.

The INAC project seemed to lose attention from the higher administrators when its class number increased 400% in three years and kept growing. Charlie considered that was an organizational issue. The university would review only the financial part of education in order to be successful. A lack of money would decrease the excitement for those people involved in the project. He thought educational institutions would have the historical mindset of the classrooms where the students sat there everyday, instead of putting more resources and thought into the future. Eric indicated that this problem could be relevant to lacking a coordinator in this project.

I would like to see a little more organization. I think that will happen with a new dean that comes in and one that's very active and wants to be proactive. I think that will change a lot. I think that we definitely need to fight and try to get more funding. We need a better line of communication between the three areas: NIC, NOC, and international programs. And I think we need to supply a better PR campaign or marketing campaign about INAC. I think we really need to spread the word out.

### *Future Development*

In this section, the administrators explain their expectations toward future improvement of this project. In addition, they also reveal their perspectives of future learning in this collaborative way.

### *Future Improvement*

Speaking of the improvements for the INAC project, four suggestions were contributed by the administrators, which included having more transparent technology, a project coordinator, resource investment, and a policy for internationalism. The technical issues were mentioned by the upper-level and middle-level administrators. The resource issues, including more funding and support, were noticed by the middle-level and lower-level administrators. Only one lower-level administrator emphasized the importance of having a policy about internationalism. All the administrators believed that a coordinator was necessary.

The two upper-level administrators indicated that making the videoconferencing technology easier would improve the development of the INAC project. According to Brian, much of the feedback from faculty members was about the complexity of the technology. The faculty preferred to have a technologist to take care of connection in the

INAC course so the faculty could focus on the content. In the future, the upper-level administrators would search for transparent technology, which the faculty members could easily operate in their courses. Allen said:

The plan that we're operating on now is to make the technology work with cheaper and cheaper solutions. What we've been using recently is the sort of standard videoconferencing network, but finding less and less expensive cameras and microphones....In addition to that, we're building in videoconferencing capabilities even within our e-mail system. We're in the process of instituting in conjunction with Microsoft the ability to be able to be at your desk, maybe writing a conversation with this person. You can check whether that person is available for a videoconference, then out of e-mail, bring up a videoconference. That's the ease of use and the transparency that we want to promote. That part of the plan is to move us forward, to make it so easy that you don't give a second thought to having a video conversation rather than just a phone or e-mail conversation.

The NIC and NOC staffs agreed that the INAC technology needed to be updated in the future and that pursuing advanced technology to improve videoconferencing was

their responsibility. According to Charlie's explanation, the current INAC system was adequate. Technically, there were minor improvements that could be made to the system in order to catch up with the advancement of technology. He mentioned that the university would upgrade to an optical network in the future:

A lot of INAC exists out across the globe in areas we don't have any direct control. We can't control whether AT&T upgrades their circuits that cross the ocean for example. But we are upgrading, continually upgrading campus for new technology, so that we're always doing the best that we can do in a cost-effective way. We have planned an optical upgrade to the network. That's pretty exciting. I'm looking forward to that...I believe that the optical network will improve flexibility. It won't necessarily improve the structure that we have, but if we're able to have that kind of capability and have more flexibility that's what it's going to gain for us.

In order to help the development of INAC, a project coordinator would integrate all the factors as a whole. Brian, Eric, Charlie, and Harry all addressed this issue. Brian indicated that a coordinator would improve the collaboration among the INAC participants. As an original participant of INAC, Harry compared the initial stage with

current status. Back in 2003, there was a coordinator in INAC, however, the coordinator went out to other university. Harry thought the INAC was getting less attention after that, and the participants were doing their own tasks. Eric expected that there would be a coordinator to fully dedicate to the development of INAC:

I would like to see what we had before, like a director of INAC. Someone who is just dedicated to this; someone who will go out; someone who will do exactly what I do but on a full time basis. I don't have the time to do it on a full time basis.

I would like to see someone in that position do that, which we did have at one time when INAC was first originated... We'll have a new dean, there's a search out right now. I know that that's going to happen. It's just a matter of hiring someone and getting him in here.

In addition to technology and coordinator issues, the concern of resources in the INAC project was considered as a way of future improvement by some middle-level and lower-level administrators. Funding was the primary part they cared about. Gloria wished to have more money, so that there could be more visits between the collaborative partners. At the beginning, the INAC faculty had more opportunities to visit the partner universities overseas. Faculty members were not likely to travel without the grant funding,



which slowed down the development of collaboration. Frank also expected to have more financial support for increasing the INAC courses. He thought funding would be beneficial to the development of this project:

If we could have a fund to support faculty to introduce and create new classes, I think that would be pretty cool. That'd be one way to do that. If we could get two or three classes every semester with partners around the world, I think that would be good. If we could grow the program that way, it would be a good thing. But right now, there's no incentive to do that, there's no drive to do that. I don't see that happening without some kind of outside force.

Charlie believed that the improvement beyond the technology was relevant to people and teaching, because the network got better every year. He emphasized maintaining the partnership with the overseas universities, because without any efforts in maintenance, personal contact would be lost and the partnership would be undermined. Charlie expected that the upper-level administrators would invest more efforts into this respect:

Technically, the network gets better every year. It's already adequate, more than adequate. I also think that the way to make it better is to actually build a stronger

organizational structure around it. Every two years we need to revisit, technically, every connection. How do we maintain that infrastructure over time? We can't just put it in and not talk to somebody in a place for five years. Eventually the connection changes, gets worse, something happens, it's unusable...Maybe that means that someone needs to continually look at these connections and when they fall below...Doing that requires continued funding out of a grant, which was not perpetual, it was one time funding. So you see the financial issues do play a part.

In order to improve the INAC project, Harry suggested that the university had to build internationalism or globalization into its policy. That policy would function as a guideline to encourage faculty participation. The strategic plan would be derived from this policy to support the faculty involved in this kind of teaching. Otherwise, the faculty would be too busy or run short of resources to do this. The following was Harry's suggestion:

It's a lot deeper than compensations that help them to have a foundation that global education must be part of your education process. Then if you ask the older faculty: 'You have to have global content in your course', any professors can say: 'global education is important'. But you went to the courses, who talked about

global education at all? Except some majors they are concerned with that area.

Any other classes you go, they don't talk much about globalization.

### *Project Prospects*

What future of the INAC project did the administrators see? The upper-level administrators thought that the videoconferencing technology was a trend of learning. Brian thought that many departments had implemented this technology to achieve the goals of internationalism or globalization assigned by the university. Allen indicated that this was a new world with digital electronic communication. More faculty and staff should be encouraged to get involved in this kind of project in order to adapt to the global environment:

We're very happy to be able to do videoconferencing now. We want to enrich the communication even more. What are the kinds of things that the next level of technology will enable us to do? Videoconferencing will be part of it, being able to integrate other data streams with videoconferencing... In the global marketplace, we have to be able to understand different cultures... Now with telecommunication technology, with better air travel, better ability to move from one place to another, what we're finding is that we're being able to adapt to this

global social environment, that we have to be more flexible and we have to know about what those expectations are.

The NIC and NOC staffs agreed with the upper-level administrators that the videoconferencing technology was an important trend. Daniel and Charlie thought the videoconferencing technology fit in the digital world. Charlie believed the university was now on the edge of pushing this technology. It would be a good development to help the faculty and staff to take advantage of this technology. Eric, who also provided some technology assistance to the faculty members teaching in the INAC courses, hoped this project would help the faculty understand the importance of the technological trend:

I think it's, hopefully, bring awareness to the importance of using technology, to the importance of what we can accomplish through technology. It's not only delivering knowledge, it also creates a setting. Student from another country can collaborate.

While the upper-level administrators focused on building up a transparent technology environment, the other administrators had a different focus. Gloria thought this project did not get as much attention as in the beginning since the coordinator had left. At the beginning, the university president decided it was valuable to have

international exchanges, which encouraged the development of INAC. However, the current president has focused on a number of fronts, so it was difficult for international exchanges to stand out. Even though Brian indicated that many departments considered the videoconferencing technology an effective tool for international exchanges to accomplish their goals, Frank thought that this project was “plateaued.” He personally suggested that the university should be clearer about what it wanted in respect to the internationalism process and globalization. Until that happens, the INAC project would just stay flat:

I think it has plateaued. “Plateaued.” That's just my opinion here. I think the higher administration needs to talk about it. I mean, make international studies a higher priority. If you look at our strategic plan, internationalism got a little tiny mention, it is not a lot. I think INAC is just a piece of our internationalism strategy. Until our internationalism strategy becomes clearer and more focused, INAC can't do it on its own, since that's just one part of it. What's the bigger international strategy? Once we determine that, we can see how the INAC fits into that.

Financial support was another concern when the administrators talked about the future of INAC. Brian indicated that the INAC project could not progress any further because of the grant. Harry suggested that the program had to financially support itself. Without enough funding, the participants of INAC might not get the necessary support for the faculty. It would end up that only limited faculty and staff would be willing to participate. Furthermore, Eric mentioned the amount of the INAC courses would increase if more funding was invested:

If we dedicate a little more money and time and resources to it, I could see us doubling the amount of videoconferencing we do on a global basis. I could see us really open to achieve all the goals of the strategic goals by diversifying campus, and also helping to recruit more international students to MSU and more students from MSU to travel abroad.

#### Administrative Incentives toward INAC

Administrative incentives included the factors that influenced the development of INAC based on the administrators' perspectives. Through the interviews, the INAC administrators did not only uncover their motives for developing and participating in this project, but they also explained how these motives contributed to their participation.

### *The Motives for Development*

There were several incentives that encouraged administrators to participate in INAC. At the student level, the collective incentive from the administrators was to help the students reach out to the world. The upper-level administrators clarified their beliefs and responsibility that bringing other cultures into the university would improve the students' educational experiences. Brian emphasized the significance of having cross-cultural communication:

...It's the fact that the audience, the 21<sup>st</sup> century audience of students, will be more engaged in this kind of communication. I think it behooves us as an institution to be responsive to that potential growth and need. We 'd better create a structure by which this can happen, so our students can outreach to every continent in the world, and they can have communication, and share content, not on one channel, but on multiple channels.

Providing an opportunity to understand the world better was the common perspective of INAC from the middle-level administrators. Technology brought diversity to classes to help the students have a better understanding of what globalization means. Instead of sitting in a classroom, the students could have immersive learning

opportunities with students from foreign countries without the inconveniences of traveling the world. Eric pointed out his expectations of INAC:

I would think that we do it to help to diversify our class. To let students understand, have a better understanding of what it means to be globalized, what it means to be a globalized country, and to learn that we're not the only ones out there.

The lower-level administrators pointed out that the INAC faculty just enjoyed teaching the cross-cultural courses. They thought that incorporating diversity into the classroom was a critical aspect of learning, especially as the world becomes more globalized. Gloria, the lower-level administrator and an instructor of an INAC course, indicated:

It's not a country that's isolationist. It's a country that, whether it wants to or not, is becoming more and more international. It's not a black/white division any more. There are many colors. ...It's my desire and my motivation for participating to help my students see the rainbow. There are a lot of colors out there.

Other than providing the opportunity of reaching out to the world, there were other incentives that influenced how the participants got involved. Organizational



prestige, the reputation or good images of an organization in certain aspects, is another incentive mentioned by upper- and middle-level administrators. INAC has established a good reputation for MSU by implementing videoconferencing and internet technology. This program responded to the institutional image of an advanced campus with technology. In addition, INAC was mentioned as a recruitment tool, especially for the international students. Because INAC implemented videoconferences to set up interaction among learners, it extended the capability to reach students internationally. This technology was not only used in classrooms, but also in college fairs and other events, providing a convenient way to contact the prospective students from out of state. INAC did not function merely as a learning tool to MSU.

### *The Contributions of the Motives*

These institutional and personal incentives lay out a model that drove MSU to move toward their ultimate goals. These incentives helped to form the vision and expectations, which not only encouraged, but also pushed the administrators to play their roles appropriately. Allen and Eric both considered the vision and goals as incentives:

I guess we had the vision and hope that we'd do this anyway. We would be encouraged by seeing those results actually manifests themselves, by seeing

students using it, by having faculty have access to resources that they wouldn't have access to otherwise, by actually seeing the business relationships with other companies be improved because of access through videoconferencing. We think that those are some of the outcomes that prove the value of the network. That's the overall goal. What basically we're trying to do is to follow MSU's strategic plan....So I think it plays a big role, an important part in meeting those goals of our strategic plan.

Getting recognition from higher level administrators of the university was another contribution of organizational prestige, which was only mentioned by Charlie. He talked about the more the university notices the program, the more resources it will have for overall development. What is more, personal satisfaction was also a common incentive contribution mentioned by the middle-level and lower-level administrators. They felt they enjoyed their jobs related to INAC. Their own enthusiasm encouraged them to keep on going, even though they had extra work. Gloria pointed this out based on her experiences:

It means that I take a day where I don't get out till midnight. It means that I spent money out of my personal slim accounts to make sure that my students feel an extra bit of, I don't know, gift or incentive to continue. It means I do a little bit

extra. I could do less and get the same evaluations. I could do less and get the same recognition, but I wouldn't get the personal satisfaction of knowing that my students have taken a step up.

### Collaboration Issues in INAC

In order to collaborate with the overseas partners, many issues played an important role in the process of project development. The common issues included course planning, objective negotiation, budgeting, technology, promotion, and evaluation.

#### *Coordination of Course Planning*

Course planning was a primary issue between the faculty members of the joint classes. In order to participate, the faculty members had to get the approval from their department chairs first. Then the faculty members could design the course through e-mails, phone calls, or personal contact. When they needed technology assistance for organizing and designing the content, they could contact the NIC staff for suggestions. For example, the NIC staff would provide examples as to what had been done in the past. Therefore, the faculty members could understand how to incorporate technology into the curriculum. After planning the course with the partner, the course could be listed in the course book for the students.

### *Negotiation of Objectives*

When developing the common objectives of the joint classes, the INAC administrators at different levels focused on different issues. The upper-level administrators mentioned technology issues. The distance partners might have different expectations of the technology connection. Brian, as an associate vice president of information technology, mentioned that there were many times that the common objectives of the joint classes did not match the level of technology. The expectations were always higher than what probably could be achieved under the infrastructure. The dialogue between the infrastructure people and the content people was required to set up the feasible objectives.

The middle-level administrators believed that the level of technology literacy of the faculty would influence the objective development of the joint courses. The faculty members could enrich their course design if they had better technology competency. For example, instructional material would be multimedia, which could attract learners' attention and encourage their access. Time difference was another issue. The faculty members had to figure it out before arranging the subject matter, because there were religious differences where you have certain times that they had holidays or breaks.

According to the personal experiences, a lower-level administrator indicated that direct contact with the overseas partner made the development of content exchange quick and easy. However, as long as they were willing to do this international long distance collaboration, e-mails or other communication tools would help the faculty members to set up the objectives.

### *Coordination of Budgeting*

There were two lines of budget mentioned by the administrators at MSU. One was the resources required to employ faculty members for developing content. The other was the expense of technology used for videoconferences. In respect to recruiting faculty members, there currently was no budget support, while there had been when the project began. The collaborative institutions had to pay their own faculty.

With regards to the network infrastructure, MSU covered the cost of building the network and hiring technologists to assure the network continued to work. In the beginning, MSU once provided some free cameras to the overseas partners in order to run the videoconferences. At that time, donating cameras was considered a good marketing tool to attract overseas partners; however, that was no longer part of the incentives for

participation. The institutions that currently participate in INAC had to cover their own cost of technology and personnel.

### *Coordination of Technology*

At the beginning of INAC, members of the technology staff from MSU would be sent off to the overseas partner when two institutions established the international collaboration. The technology staffs at both sites were to check out the facility and set up the connection, especially in some areas without advanced technology. As a result, the technology on both sides could be compatible. The middle-level administrators indicated one concern in a joint course was the unsymmetrical technology between the host side and distant side. The perspectives of technology from the participants might not be the same. In order to collaborate internationally, getting the faculty members and technologists excited about what technology could do was important.

Currently, the overseas partners clearly understood the criteria of establishing and acquiring the same technology that INAC used, H.323 technology. They had to meet the criteria to run the videoconferences. In fact, some overseas partners had more advanced technology than MSU. Currently, the technology staff rarely goes overseas to do the

hardware check. The specification of the videoconferencing was available online, and they still provided the technical assistance by e-mails or videoconferences.

### *Coordination of Promotion*

The INAC program was not directly promoted by the university. Most efforts for marketing the programs focused on the use of videoconferencing technology instead of INAC itself. This technology was promoted on the website as well as in the technology fair. It seemed that INAC was just one application of this technology. Videoconferencing technology was not only used for international academic joint ventures, but also served as a communication tool for the governor's speech and international college fairs. Allen indicated that this approach would create a technologically proficient MSU image.

The international programs office, where Eric served, was in charge of marketing and establishing the partnership with the overseas institutions. Eric reviewed the majors from the overseas institutions to match programs at MSU, and then he tried to contact the heads of these departments for collaborative opportunities. Even though this task is not Eric's primary job, he would like more support in this endeavor.

### *Coordination of Evaluation*

Evaluation was the missing link in INAC, for there was no *formal* evaluation for this project. Eric mentioned an evaluation might be launched at the end of this grant, which was specifically noted in the grand proposal. MSU had to report to a committee which examined to what extent they had accomplished the goals of INAC. Even though there was no formal evaluation of this project itself, some courses were evaluated, and the technology was evaluated for performance. Some faculty members also developed evaluations for their courses. In terms of technology, the technologists constantly monitored the network usage. With these reports, the technologists would figure out how well the videoconferences were going, and what technical difficulties the faculty might encounter. Charlie explained this job of the technologists:

Evaluating the education successes is a faculty issue. Evaluating success technically, we have equipment that actually monitors those connections.... In video, we have frames. How many frames get lost, doesn't make it to their destination? What the delay is? We're able to measure all of those. That's how we measure the success, and over time, we've made that better.



Most of the administrators in INAC had a common expectation for future evaluation. They would like to know the educational impact of INAC to the students. Did the efforts invested in INAC actually result in making something better in terms of education or experiences for the students? Gloria indicated that the students and faculty were the most important components in INAC. Frank, a middle-level administrator, specified the evaluation regarding to the level of interaction. Other than those polite greetings online, he expected to see how well the students made the analysis via the videoconferences.

For the upper-level administrators, they also expected to see the usage of the videoconferencing technology, the engagement of the students, and the activities involved from the departments. Their focus of future evaluation centered on the institutional impact of INAC. In addition, the evaluation of cost-effectiveness was mentioned. Brian explained that comparing the satisfaction of engagement and the investment of resources would enable the administrators to measure the effect of these international collaborative experiences.

### Summary

This chapter presented the findings from interviews with the administrators of INAC. In order to have a better understanding of this study, the project development part provided the background information about the context. The INAC project is a part of the larger i-Comm grant, which was funded in 2002. Its primary goal was to provide the intercultural interaction by the videoconferencing technology. There were three dimensions involved in the implementation of this project. They included the academic programs, distance education, and computer network services. Technology training was a critical support identified by the upper-level administrators. The other administrators looked for other support. For example, the financial support or faculty compensation would encourage more participation of faculty. The perception of the achievements of the program varied. The upper-level administrators believed that it was a good model for reaching out to the world. The middle-level administrators focused on the diverse uses of this technology; while the lower-level administrators centered their attention on intercultural interaction. Technical difficulties and time were considered as the primary obstacles in INAC. In terms of future development, the participants all agreed this approach still had great potential at MSU. The administrators had different expectations

for the future improvement, such as enhancing technology transparency, recruiting a project coordinator, and providing financial support

The administrative incentives described by the study participants illustrated their perspectives. The participants identified that providing the opportunity of immersion in a cross-cultural context was the primary incentive for this project. In addition, organizational prestige, technology and other factors were mentioned. These incentives functioned as the visions or missions for the participants.

The third part of this chapter was relevant to the collaboration issues. The participants explained how they coordinated the issues of course planning, negotiating objectives, technology, budgeting, promotion, and evaluation. MSU and its overseas partners dealt with the budgeting and promotion issues individually. The course planning was left to the faculty members in the shared course. They had to communicate and negotiate the exchange of that subject. In terms of technology, there were technical specifications and standards provided by the technologists at MSU. Evaluation was only conducted on the course level. The whole project has not completed any formal evaluation so far.

The next chapter will examine the data found in this study that was presented here and draw out larger themes.

## CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This chapter examines the findings in a systemic framework. The framework is derived from the research questions. The findings are compared with the literature, in which the gap between the theoretical and practical settings can be identified. In addition, conclusion and recommendations for this case and for this field are made based on the comparison. Finally, suggestions for future research are made in this chapter. The research questions include as the following:

1. What factors are considered when a university seeks to collaborate with other universities to extend educational opportunities through technology?
2. How do administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development, through the literature?
3. How does the INAC case compare with the findings from the literature?

### The Administrative Incentives of Developing INAC

Four administrative incentives were uncovered in INAC when compared to the seven factors from the literature reviews.

#### *Opportunity for International Exchanges*

With the emergence of information communication technology, distance learning brings many promises, as well as many challenges, to educational institutions. Some common administrative incentives when implementing distance learning were identified in the literature review as commercialization, prestige, personal gains, resources, technology, learning quality, and control. According to the perspectives of the administrators from INAC, the primary incentive that drove this project was to provide the opportunity for international exchanges. In the strategic plan of INAC, it was a project goal to provide local and global education to learn via new technology. This could be considered an institutional goal as well as a personal goal of the faculty and staff. Organizational prestige was another incentive mentioned by some administrators of INAC. The institution would extend its reputation domestically and internationally because of this videoconferencing technology. This kind of technology did not only help MSU to access academic companions, but also to find the business partners.

Pursuing the cross-cultural interaction was the emphasis of INAC. Gloria indicated this concentration had resonated with the president of MSU at the time INAC was being developed. It formed with a clear vision that showed where to go. At the beginning, INAC attracted many resources and voluntary faculty and staff. There were specific classrooms equipped with the videoconferencing technology on campus. The technologists traveled to overseas partners to establish the connection. Under the guidance of the committee, INAC seemed to have a promising prospect to embrace the trend of globalization. Many researchers emphasized the importance of having a vision for implementing a distance learning program (Levy, 2003). When a vision was developed, the participants would understand that the vision could result in a change in this organization. Therefore, the administrative support, student services, technology support, and faculty training needed to be analyzed and integrated into the distance learning system (Hache, 2000). When INAC had just been initiated, its vision of embracing globalization won recognition from the participants.

Currently, some of the middle-level and lower-level administrators felt that INAC got less attention from the upper-level administrators because there were other priorities instead of growing internationalism. Therefore, the administrators did not get continued

support and resources for the development of this project after the grant funding ended.

The participants just did what they could do without the money. That is why Daniel believed that this project had “plateaued.” Godbey and Turlington (2002) identified that the first tip for a successful international collaboration was to gain strong support from presidents and provosts. In order to run an international academic joint venture long-term, an institution has to make sure it has a whole-hearted commitment. Levy (2003) indicated that what the administrators believed would influence the effectiveness of a distance learning program. Basically, the administrators have the potential impact of a distance program in terms of securing resources, recruiting possible partners, supporting changes, and implementing learning processes. INAC’s case exemplified how the upper level-administrators impacted the development of this project.

### *Organizational Prestige*

Organizational prestige was another incentive for MSU to initiate this project. MSU once featured a high level of technology for promoting its campus. The INAC project with the videoconferencing technology would strengthen this image. It eventually became credit for MSU in regards to technology. In addition, INAC could reach the overseas partners from all over the world. It would expand its brand awareness to these



overseas countries. In the long run, it would benefit MSU when recruiting international students. Adams and Seagren (2004) indicated many educational institutions developed distance learning programs to gain a stronger reputation. They understood that the early adoption of technology could create a positive image of their institutions, and also disseminate their reputation even to the overseas. When the funding was still sufficient at the beginning of this project, MSU provided some video cameras as give-a-ways to some overseas partners. Also the technology staff traveled to the partner institutions to check the infrastructure and to establish the connection. MSU could establish a leading image in terms of technology to the overseas partners.

### *Technology*

Technology and commercialization would be the subordinate incentives for the administrators other than the opportunity of international exchanges and organizational prestige. MSU emphasized the potential and influence of technology. One of its slogans was relevant to innovative technology in education. MSU also advertised the campus with much technology as a big feature. In order to take advantage of technology in INAC, Allen concentrated on transparent technology for teaching. In addition, the NIC and NOC staff of this project continually researched new technology for improvement. Charlie and

Daniel did not only help the faculty to incorporate technology into its courses, but also kept improving the infrastructure. Charlie and Daniel talked about their optical upgrading plan for the current system. Furthermore, the other administrators of INAC understood the power of information communication technology. They believed that technology advancement rapidly influenced learning and teaching. According to the administrators, technology could improve interaction with the world.

INAC was one project of the larger i-Comm grant. The other projects in that grant included establishing a technological infrastructure for media and communication technology industries in the state and developing a program to foster the students with the capacity of implementing information communication technology. It seemed that MSU took technology into consideration as its competitive advantage. Allen indicated that technology played a key role in the world, which was moving from analog communication to digital communication. The videoconferencing technology did not only help to partner with overseas educational institutions, but also business companions and governmental offices. The multiple uses of the videoconference represented the expectation of the administrators of MSU. Because new information communication technology holds many promises, the administrators of the current educational

institutions should keep tracking this trend of innovation (Valentine, 2002; Reindl-Johnson, 2005).

Keller (2005) reviewed three implementation models of distance learning, including implementation as technology acceptance, implementation as diffusion of innovations, and implementation as a learning process. The INAC project resembled Keller's second model. The administrators of INAC understood the power of technology. Accepting technology was not their focus. Instead, they used this chance to diffuse technology on campus. The administrators of INAC really wanted to encourage more involvement from the faculty and staff by providing technology assistance and equipment. The videoconferencing technology provided an alternative to education other than the traditional classroom learning. When the grant funds were running out, some administrators encountered obstacles that prevented them from continuing their tasks. Even though this project still found its niche, the middle-level and lower-level administrators suffered from unclear goals and insufficient support. It seemed the INAC project did not include all the relevant stakeholders as a community of practice or integrate the manpower and resources into an action plan, which was the third model. In the development process of INAC, this fact became a potential issue, which mentally and

practically influenced some of the administrators, especially those middle-level and lower-level ones.

### *Commercialization*

Commercialization was not the primary incentive to the development of INAC. However, it still played a potentially important role for MSU. The multiple uses of videoconferencing technology showed this intention. Eric indicated that this kind of technology was used in the college fairs for international student recruitment. In addition, INAC was a part of the i-Comm grant. Brian also explained that securing the grant was critical to the initialization of INAC. Apart from academics, Allen explained that the grant also would allow videoconferencing and cooperation with businesses in the states. For example, INAC once collaborated with the Hollywood media companies. However, MSU did not use videoconferencing technology as a means to increase the enrollments of students or expand the resource. Commercialization might be the secondary benefit of INAC to the institution.

Valentine (2002) once indicated that one of the primary benefits of distance learning was financial in nature. In the case of INAC, the videoconferencing seemed to focus on building diverse partnerships rather than accessing non-traditional students and

increasing enrollments. These two factors were the most common factors that influenced the development of distance learning programs in the current educational institutions (Levy, 2001; Adams & Seagren, 2004; Havice, 2001; Kezar, 2000). However, Ryan and Lane (1998) indicated that diverse partnerships between schools and companies would influence how business funded and supported learning services. It would benefit an educational institution to get more private funds, especially when there were no sufficient government funds (Kezar, 2000). INAC brought two financial benefits to MSU: the i-Comm grant and the technology services provided to the businesses. To a degree, INAC might be considered a tool of commercialization for MSU.

### Incentive Impacts on the Collaboration in INAC

This section addresses the impacts of the four administrative incentives on the development of INAC. These incentives influenced the collaboration of INAC on the following aspects: establishing goals, recruiting participants, leveraging resources, enhancing communication and negotiating course design.

#### *Establishing Goals*

According to Rogers and Whetten (1982), interorganizational coordination is defined as the process in which two or more organizations develop decision-making rules

to deal with their shared task together. Two critical components can be identified from this definition: the shared task environment and the role of collectivity and attainment. In order to create the shared tasks with collective involvement, interorganizational coordination can be impeded without clear goals and objectives (Berman, 1988).

The administrative incentives for INAC helped building the common goals for the participants. This project was developed to echo the educational trends of globalization and technology. All INAC administrators agreed that increasing the interaction with other cultures for students is critical for learning. In addition, this videoconferencing technology is the economic and convenient way for this purpose. They are willing to participate in this project to achieve the project goals.

Neal indicated that the partners in a partnership can bring in different perceptions of shared tasks and collaboration process because of their expectations (1988). Building realistic expectation is important for collaboration. In INAC, the lower-level administrators focused on the incentive of international exchanges, while the other administrators considered about the incentives of organizational prestige, technology, and commercialization. These expectations were relevant to their tasks in INAC. For example, the NIC staff, a kind of mid-level administrator, tracked the advancement of technology,

but the lower-level administrators were busy in developing the course design with their overseas partners. Even though the expectations of the INAC administrators were not all the same, they did not cause the developmental tension. Their expectations conformed to the common project goals.

### *Recruiting Participants*

In addition to the developmental and structural tensions, relationship tensions are another kind of challenge for interorganizational coordination (Johnston & Thomas, 1997). The relationship tensions exist between individuals and organizations with collaboration. It has been indicated that the partners lacking of commitment can undermine the joint efforts (Rogers & Whetter, 1982; T. Valentine, 1984).

From the organizational level, MSU had partners over the world. It has built up its own reputation based on technology capacity. At the beginning of INAC, MSU also provided free webcams for some oversea partners and sent the technology staff over for setting up the communication. The more the videoconferencing technology was used, the more experiences MSU collected. There were more INAC courses in different fields. The incentives of technology and organizational prestige help to recruit the overseas partners. In addition, INAC focused on the opportunity of international exchanges. MSU

integrated different campus units to achieve this goal. It becomes the internal driving force to reach out more overseas partners.

At the personal level, different participants were influenced by the incentives. In addition to the opportunity of international exchange, some higher-level and mid-level administrators of INAC considered the videoconferencing technology is a good tool of recruitment, especially for international students. The commercialization incentive may impact their support for this project. In terms of recruiting faculty, the opportunity of international exchanges is the big incentive. The INAC administrators indicated that the faculty members teaching the INAC courses enjoyed and embraced this kind of cross-cultural teaching. Their personal interests just contributed their participation. As for students, the incentives of international exchanges and technology can encourage their participation. They can enrich their learning in a cross-cultural context with economic price and time.

### *Leveraging Resources*

Interorganizational coordination can be regarded an effective strategy for higher education institution because it can expand and enhance the strength and advantages for survival in the world full of uncertainty of diversity and change (Beder, 1984a; Larrance,



2002). Beder (1984a) indicated that the necessary resources for organizational survival include money, clients, manpower, information, and power.

INAC is an international academic joint venture, which allows real-time interaction in a cross-cultural context. MSU did not worry about the recruitment of faculty from other cultures. In addition, the cost-effectiveness of INAC courses will increase when more students are involved, since INAC uses videoconferencing technology and broadband network for delivery. This project can save some cost and increase manpower for MSU.

INAC also created some monetary benefits for MSU. It originally was a part of a big grant, i-Communication. MSU directly benefited from this aspect. The grant was used for purchasing digital equipment, enhancing advanced facility, assisting international travel for faculty and staff, helping project promotion, and so on. In terms of increasing clients, INAC may become the recruitment tool for untraditional students. The videoconferencing technology was used in the college fairs three times to contact the prospective students. Even though the opportunity of international exchange and technology are the primary incentives, the commercialization incentive is a critical consideration for the INAC administrators.

### *Enhancing Communication*

Communication is a critical attribute of collaboration. Without communication, the participants cannot negotiate and coordinate the manpower, resources, and process (Neal, 1988). Collaboration does not come without any cost. In a word, a leader needs to communicate the missions and goals of collaboration to the followers. And the followers will understand the development endeavors in which the common goals and need intersect.

In order to establish effective communication, leadership structure can be a critical challenge of collaboration (Neal, 1988). The leadership structure intertwines leading with following. Only when the participants are all willing to commit, collaboration can be successful through joint action.

Three dimensions of campus units were involved for the development of INAC, including the colleges on the campus, the distance education program, and the computing services unit. These three dimensions reflected two administrative incentives: technology and the opportunity of international exchanges. These two incentives were the project goals, as well as the joint action, for the participants. According to the INAC administrative interviews, they were willing to commit to this joint venture.

The interpersonal relationship among the participants facilitated the communication for collaboration of INAC in an informal way. There were also formal communication channels in INAC when it had a project coordinator. The routine meetings helped the participants to realize the development of this project. In order to achieve the international academic joint venture via technology, the participants gathered together to regularly check the missions and improve their tasks.

In addition, many administrators agreed that INAC gained more attention and resources at that time when this project had a coordinator. The project coordinator could help not only to communicate among the administrators at different levels, but also to negotiate the resources with the other stakeholders. The project leaders played a critical role in the development of INAC.

### *Negotiating Course Design*

The last component of interorganizational coordination is joint decision-making and action, which means the shared tasks within certain contexts (Rogers and Whetten, 1982). The preparation and coordination beforehand can be presented in their work. Neal (1988) indicated that an effective consortium can blend all the information, insights, and

voices of the participants together for their own benefits. The joint decision-making and action is the execution stage of interorganizational coordination.

Even though the INAC courses had various subjects and teaching formats, the key core was tied with the real-time interaction within a cross-cultural context. These INAC courses were developed by the teachers from both sides. They both put international exchanges and technology into account for course design. Before these courses began, the teachers had to meet either online or in person to assure the feasible technology, appropriate contents, time difference, and interactive communication. In addition, technologists were also involved in these INAC course design. They did not only provide trouble-shooting assistance, but also provide suggestions for designing instructional activities. Back to the first years of INAC, the technologists traveled to the overseas partner universities to check out the network specification. In this aspect of course design, the incentives of international exchanges and technology impacted the learning objectives, interactive content, delivery channel, and so on.

#### Comparison INAC with Literature

After the first two research questions were discussed, the factors proposed by Mattessich (2003) were used as a framework to discuss the last question. These factors

influencing collaborative partnership are categorized into six categories: general environment, membership, purpose and communication, structure and process, and resources.

### *General Environment*

The environmental audit is a critical indicator of measuring successful partnerships. The environmental audit consists of internal and external conditions. Generally speaking, organizations with a rich history of collaboration would have a good start. Those having negative experiences would spend more time and effort on collaboration (Mattessich, 2003). The reputation of an organization would be an indicator of collaboration. The better reputation an organization has, the more attractive the partners would feel, and the easier the process might be (Sanders, 2006). In addition, organizations had to take the social and political climate into account. Having support from the social and political environment would benefit the development of partnerships (Mattessich, 2003).

Some issues and trends impacted the current higher education institutions. For example, the intense accountability, tight fiscal resources, and fierce competition were critical issues that college administrators encountered (Havice, Watson, & Cawthon, 2000;

Havice, 2001). Advancements in technology created many educational promises. The administrators tried to take advantage of the innovative technology as an effective and appropriate solution to embrace the trends. Therefore, distance education became an alternative approach to reaching non-traditional learners, increasing student enrollments, expanding learning resources, and raising competitive advantages (D. Valentine, 2002; Li, 2002; Dooley and Murphrey, 2000; Kezar, 2000; Y. Levy, 2001). Besides, the globalization enhances the entrepreneurial aspects of education, as well as the academic aspects of higher education institutions. Contact with overseas partners might enhance the learning experiences and cultural understanding of the students. Also, the collaboration might give opportunity to expand the market of those higher education institutions to recruit international students and sell educational products (Husmann and Miller, 2001; Green & Baer, 2001; S. Levy, 2003).

In order to respond to these two educational trends, MSU designed the INAC project, in which technology was implemented as the means to collaborate with the overseas partners. It created a learning environment in which the students could immerse in an intercultural context in an economic and effective way. In addition, this project could have the entrepreneurial functions, such as marketing the school brand, recruiting

international students, and selling the academic products. In line with what Allen, Eric, and Frank had mentioned, there were multiple uses of videoconferencing technology. This project had its niche in the social climate. In the aspect of internal conditions, MSU tried to establish its image with innovative technology in education. It demonstrated its technological capabilities by building the infrastructure and facility for the overseas partners. When seeking potential overseas partners at the beginning, they provided free cameras and technology assistance to them. In this way, MSU could enhance its leading role in the collaboration. In the meanwhile, some administrators involved in INAC had the connection with the overseas partners. It made it easier to establish the international academic joint venture because there were coordinators to set up planning, communication, negotiation, and cooperation. From the internal environmental audit, MSU launched the INAC project with much preparation.

Even though the INAC project was initiated because of the trends of technology and globalization, it seemed that the weight of these two trends was not even in this project. An interesting thing found among the upper-level administrators and the technologists was that the videoconferencing technology seemed to be the synonym of this project. When they talked about the implementation and development of INAC, they

would sometimes focus on technology itself instead of the international exchange of this project. Maybe in their perspectives, INAC was a kind of application form of this videoconferencing technology. There were other uses of this technology in this grant. As long as the videoconferencing technology could function as expected, the upper-level administrators considered the INAC project as having no problem achieving the set goals. This technology-centered mindset might influence the project development in the long run, because it would lack a holistic view as a project. Some literature reviews indicated that adapting innovations to fit the organizations, rather than just adopting technology, would benefit more to the sustainability of the distance education programs (Husmann & Miller, 2001; Christo-Baker, 2004). In order to run the INAC project effectively, the administrators should be aware that the other factors need to be taken into account as much as technology.

### *Membership*

An effective partnership would be a critical factor for collaboration. In order to have the various voices in a team, there should be stakeholders from various categories of involvement (Sanders, 2006). The collaborative participants should commit to the joint efforts voluntarily and actively. Eventually, they could undertake the missions relevant to



the partnership. In the case of the INAC, the administrators of MSU all understood the impact of the videoconferencing technology and believed the value of the intercultural interaction. They willingly participated in this project because of their educational philosophy and instructional passion. For example, Daniel, Charlie, and Eric considered their jobs meaningful. The technology created the flexibility and possibility for learning. Gloria, Harry, and Allen agreed that globalization was a big trend for the field of education. International joint academic venture would expand the learning experiences for the students. The administrators in INAC appreciated the potential and actual influence of the videoconferencing technology, so that they voluntarily participated in this project.

It seemed that the participating motives of the administrators of INAC were more relevant to the intrinsic motivators rather than the others. Many research results showed that faculty tended to be motivated by intrinsic factors, such as improving teaching or embracing challenges, other than monetary awards or extrinsic motives, such as requirement of departments or support of administrators (Meyer, 2002). Frank, Gloria, and Harry's talk of the faculty teaching in INAC reflected these findings. According to the middle-level and lower-level administrators, the faculty who taught the INAC courses

did not get special compensation. Even though Allen and Brian mentioned that some faculty compensations were provided, the faculty and staff received little support. For example, Gloria and Frank mentioned that at one point there was a compensation for traveling to the distant sites at the very beginning of the project. It seemed there was a gap between the administrators at the different levels. However, the faculty members were still willing to do it, because they considered that this innovative teaching would bring the students more learning benefits.

In spite of the fact that administrators of INAC were motivated by the intrinsic factors for participation, it did not mean they had no expectation for the other motivators. In the case of INAC, there was a gap of administrative support between the upper-level administrators and the other administrators. The middle-level and lower-level administrators, such as Frank, Eric, and Harry, expected to have more resources invested in this project. Financial support was a big concern. In order to build up and maintain the partnerships, more financial support would benefit the sustainable development. Since the grant money was running out, some of the administrators worried that the future development of INAC would become flattened, even undermined. Harry suggested that the first priority of a program was to support itself financially. From the literature review,

appropriate financial support was considered as a critical administrative support for distance education (Milheim, 2001; Schifter, 2000; Adams & Seagren, 2004; Compore, 2003; Schauer et al, 2005). The financial support would not only serve to develop and deliver the courses but also to establish or maintain the partnerships by contacting the participants at the distant sites.

In order to encourage more faculty and student involvement in distance education, some research indicated that faculty compensation would be beneficial to that purpose. The compensation might include more release time, monetary reward, credits toward tenure, and so on (Meyer, 2002; Milheim, 2001; Dooley & Murphrey, 2000; Schauer et al, 2005). In the case of INAC, some of the middle-level and lower-level administrators agreed that more faculty compensation would encourage the faculty participation in this project. They indicated that the more stipends could be provided, the more willing the faculty members would be to try this project. The interesting thing was that the upper-level administrators thought the faculty compensation was built into the school system, such as in the provost's or dean's offices, when actually the other administrators only received little, if any of that. Apparently this was the issue that the administrators needed to figure it out.

Technology training was mentioned as an indicator for encouraging faculty to get involved in distance education programs (Adams & Seagren, 2004; Schifter, 2000; Brooks, 2003; Levy, 2003). Faculty development, instead of the acquisition of technology, was the key component to the successful implementation of technology (Schoeny, Heaton, & Washington, 1999). In the case of INAC, the upper-level administrators emphasized the faculty training as the critical component of the administrative support. They believed that the more the faculty members were familiar with the videoconferencing, the more comfortable they would be in participating in this kind of teaching. The other administrators agreed that there was sufficient technology support to the faculty involved in this project. Therefore the faculty members could feel comfortable to establish the connection with the distant site and could concentrate on their subject contents. In a sense, technology support and training would encourage the faculty to incorporate innovative technology into their courses.

Another concern relevant to the faculty commitment to distance education was the administrator's tone, especially the support from the upper-level administrators (Milheim, 2001). Some of the INAC administrators felt the upper-level administration did not pay as much attention to internationalism as in the beginning. Many factors were relevant to

this situation. For example, Harry indicated that there was no policy of this respect. Eric mentioned that the lack of a coordinator impeded the project development. Frank believed that less attention from the upper-level administrators resulted in insufficient support. These perceptions somehow reflected the mindsets of the upper-level administration toward the INAC project in the different phases. Many researchers agreed that building a policy would benefit the development of distance education programs (Christo-Baker, 2004; Milheim, 2001; Schauer et al, 2005; Meyer, 2002; Meyer, 2002). The policy should include the procedure, compensation, and support as a whole. For example, the policy should consist of class size, instructional design, technology training, faculty compensation, course marketing, and credits for tenure or promotion (Milheim, 2001; Schauer et al, 2005; Meyer, 1999; Dooley & Murphrey, 2000). In this INAC case, Harry strongly suggested that the institution should make a policy not only relevant to technology but also to internationalism. The policy would take all the relevant factors into consideration.

### *Purpose and Communication*

Successful collaboration needs specific directions to integrate the efforts and resources as a whole. These directions can be interpreted as visions or missions for the

project (Mattessich, 2003). Developing shared visions will help to foster genuine commitment and enrollment, rather than compliance, to the ultimate achievements required by the collaborative organizations. The shared vision does not only function as the inner force to inspire the participants but also comes into the foundation for trust and commitment in the partnership (Harris & Muijs, 2005). In order to develop a shared vision or mission for a partnership, each participant should share common goals. Otherwise, the collaboration will suffer the resistance or reluctance from the participants.

### *Objective Issues*

The INAC project had its vision based on the environmental audit. The project was a component of the i-Comm grant, which sponsored research on the design, creation, distribution, and effects of the converging digital media. Before this project started, an analysis report about the current educational trends and learning needs had been done by the upper-level administrators. According to the broad conception, six goals were developed in the grant. The launch of the INAC project was relevant to the fifth goal in the grant. The upper-level administrators, Allen and Brian, both started with the executive summary based on the globalization and technology trends in the field of education. The other administrators all consented to impacts of these trends. They all agreed that it was

critical for the current students to understand the world better. In a sense, the administrators of the INAC project had the common idea where and how the INAC project would go. With project direction in agreement, the administrators were willing and committed. For example, Daniel, Charlie, Eric, and Gloria thought this work was meaningful. They all recognized their roles and functions in this project. They wanted to engage in this project because it included their interests, expertise, and expectations.

Even though the administrators received the shared visions of this INAC project, the middle-level and lower-level administrators were not given specific objectives from the upper-level administration. Allen and Brian indicated that the long-term and short-term objectives were built in the strategic plan of INAC. They believed it was clear and that the development of INAC was according to these project objectives. However, other administrators had the opposite opinion. Frank, Harry, and Daniel claimed that they did not get clear information of either the long-term or short-term project objectives.

According to the strategic plan for INAC, the goals and objectives were designed only for the first six months. At this time, the INAC project had lasted more than six years. These goals and objectives needed to be examined for their validity and current fit with the project. There seemed to be a gap between comprehending, receiving, and

fulfilling the goals and objectives set between the upper-level administrators and the other administrators.

### *Communication Issues*

The missing link of delivering project goals and objectives reflected the communication issues in INAC. Better communication will have helped to convey information consistently, discuss issues openly, and increase understanding of the members in a partnership. Good communication can create consensus and rapport among the participants (Bergquist, Betwee, & Meuel, 1995). Communication can occur at the organizational level as well as the interpersonal level. The interpersonal level deals with personal contact and relationship, in which the organizational level focuses on sharing, discussing, and negotiating information and decision-making. The administrators indicated that informal communication occurred successfully and smoothly among the middle-level and lower-level administrators. Phone calls, e-mails, or videoconferencing technology would help their contacts for assistance or discussion. In terms of communication at the organizational level, Charlie and Daniel kept regular reports of the technology development and usage for Allen. However, unlike the beginning stage when there were committee meetings for INAC, there were no longer formal communication



channels to discuss the whole project development. Harry, Eric, and Charlie indicated that there had not been a committee meeting since the last project coordinator left in 2005. Without further information of the project development, the middle-level and lower-level administrators felt frustrated and isolated. They could not update their information and goals about the future development of INAC. The communication issue engendered the psychological obstacles as well as the impact to the project's progress.

#### *Lack of leadership*

The lack of the project coordinator was a critical issue relevant to purpose and communication in the INAC project. Many predicaments that INAC encountered were because there was no project coordinator. In the beginning stage, INAC had a director for negotiating, integrating, organizing, and scheduling the relevant work. With a leader, INAC could run smoothly, based on the collaboration among the campus units, including NIC, NOC, and international programs. However, this position has been vacant since 2005. Since then, the INAC project was directly supervised by Allen and Brian. These campus units lost vision and guidance. Even though the project was still ongoing, some detrimental changes and impacts occurred to its development in many aspects, such as member morale, partner relationships, future improvement, and financial support.

Neal (1988) indicated that effective leadership was a critical challenge of collaboration. Organizations would rely on the leadership structure and communication channels. A leader in a partnership needs to be skilled in negotiating, compromising, and accomplishing tasks and goals. A leader usually has to deal with sudden changes in the environment. In an organization, a leader has to deal with resistance from members and from collaborative decision-making efforts. In addition, motivating and inspiring the members was a challenge of leadership (Berman, 1988; Villa, Thousand, & Nevin, 2004). Therefore, there are five potential roles for a technology leader nowadays: a management engineer, a human engineer, a clinical practitioner, a chief, and a high priest. The role of management engineer focuses on the technical and organizational aspects, while the human engineer role emphasizes human relations and conflict management. The role of clinical practitioner is relevant to the professional and pedagogical aspects. The chief role represents the symbolic and visionary aspect. And the last role, high priest, focused on the values, beliefs, and cultural aspects (Ertmer, Bai, Dong, Khalil, Park, & Wang, 2002). These roles show a leader's functions and impacts. In order to continue improving the development of INAC, MSU had to recruit an appropriate candidate as the project coordinator. According to the current INAC situation, the new project coordinator should

put the roles of management engineer, chief, and high priest on the top of the leadership priority. It does not mean that the interpersonal relationship and professional skills are not important. The other leadership roles just directly respond to the challenges that the INAC administrators have mentioned.

### *Structure and Process*

Organizational structure and partnering process were two essential components for collaboration. Usually collaboration involves the organizational structure as well the interpersonal interaction in the process. The incompatibility of the organizational structure may develop internal strain and unexpected sacrifice (Beder, 1984b). An organization has to prepare for collaboration with the flexible, open, and adjustable structure in order to meet the demands of the joint efforts (Mattessich, 2003).

### *Structure Issues*

The INAC project was run in a non-centralized form. In a word, there was no specific campus office or unit in charge of it. Allen addressed that there were three dimensions of running the INAC project, including the colleges on the campus, the distance education program, and the computing services unit. The first dimension, the college on the campus, represented its academic side, which was relevant to the provost

office and each of the college deans. They focused on whether the exchange matters were for academic credits or only regular classroom activities. The second dimension was relevant to the distance learning program since the videoconferencing technology was used to deliver the joint courses. This dimension provided assistance to instructional design, technology support, and facility reservation. The third dimension was relevant to the infrastructure and technology. They were computer services staff who would configure the network and firewall on both sides when establishing the partnership. In addition to these three primary dimensions, international programs were also involved in this project because they were in charge of outreach services and project marketing. These relevant campus units were selected based on their functions. These three dimensions maintained the collaborative relationship. When collaborating together, they usually did so with phone calls, e-mails, or videoconferencing technology for connection. Sometimes they would have personal contact for further discussion. Decentralization was the organizational structure used to run the INAC project.

There was the controversy about the decentralized structure for the INAC project. On one hand, the project was organized based on their functions. The professionals could provide their expertise. Allen indicated that there was no specific office or unit to

determine the direction of this network. Charlie added one concern to the centralized structure: responsibility. He claimed that no one might be responsible for the necessary jobs in a collective group when encountering the problems or difficulties. On the other hand, some administrators promoted a centralized structure for INAC. Brian considered that this way might be more effective since all the functions were integrated in a unit. Eric, Daniel, and Frank preferred the centralized structure because of the resource integration. With this organizational structure, there would be a project coordinator to deal with connecting new partners, promoting the project, recruiting faculty, seeking funds, and improving the project. In a sense, they considered that the centralized structure could enhance its functions as expected.

These two structures both had their advantages and disadvantages, and both were feasible. The decentralized approach would continue to be the current organizational structure. One disadvantage is its inefficiency. Besides, INAC would need a strong leadership to integrate the relevant units as a whole. On the contrary, the centralized approach could integrate all the functions and resources. However, there would have to be some changes made to the current organizational structure which might cause extra workload and political issues. The upper-level administration would have to collect more

information to determine which structure would be more appropriate for INAC.

Nevertheless, a fact interpreted from those who supported the centralized structure was the expectation for a project coordinator. They appreciated that a project coordinator provided directions, located resources, negotiated with partners, and made action plans. Having a leader would help the participants to identify their roles and to perform their expertise. This was the primary concern for the continuous development of the INAC project.

#### *Process issues*

When developing a strategic plan for distance education, administrators of higher education institutions had to consider the influence of the process on the faculty (Christo-Baker, 2004). The systematic issues related to the participant adoption or involvement in distance education should be addressed by the administrators. These issues included policies, procedures, training, and so on. A strategic plan could be divided into six stages. The first four stages included setting the visions and developing the goals and objectives. Then there came the implementation and monitoring stages (Howell, 2000).

In the case of INAC, the implementation stage was relevant to the development of the joint classes. Since the joint classes were collaboratively taught by the instructors at the host and distant sites, the expectations and instructional methods had to be negotiated and discussed. The technology issues were mentioned by the upper-level and middle-level administrators. Since the technology development sometimes was not symmetrical at the host and distant sites, the instructors had to adjust their expectations of technology on their campus. According to their experiences, sometimes the instructors had higher expectations of what they could do beyond the capacity of the current technology. Therefore, it would practically and psychologically influence their instructional design of the joint class. Time difference and interpersonal communication were the other factors that needed to be considered, which were mentioned by the middle-level and lower-level administrators. The former issue was relevant to the subject matters, while the latter issue was relevant to the trust. The instructors had to figure out these issues before starting the joint classes. One of the administrators' jobs was to help the instructor figure out the different expectation between the host and distant sides. Otherwise, the different expectations might cause additional risks and challenges (Neal, 1988).

Planning the curriculum for INAC also involved the pedagogical issues. When the instructors involved in the INAC project tried to develop their joint classes, the technologists did not only function on the respect of technical delivery, but they also provided the non-technical suggestions and support. Valentine (2002) indicated that the technologists had indirect influence on the learning environment by reducing the anxiety of the instructors and advising the instructors on instructional techniques. According to Frank, Eric, Harry, and Gloria, the technologists provided good on-site technology assistance and troubleshooting, which made the instructors feel comfortable and be able to concentrate on teaching. In addition, Daniel mentioned that they would help the new faculty involved in INAC to design the joint classes by using some examples from the previous INAC courses. They would also suggest appropriate devices and techniques which might be used in the courses. In addition to technical delivery, the technologists also had the impact on the quality of the presentation in these courses.

### *Evaluation Issues*

Evaluation plays an important role in the process of the strategic plan. It provides feasible and helpful feedback for the aspect of learning effectiveness, as well as the program planning (Milheim, 2001). There were different approaches to evaluation. The



goal-oriented approach, which is the oldest model, usually functions to determine to what extent the predetermined goals or objectives have been achieved. Recently, the naturalistic evaluation has been getting attention. This approach implements interpretative techniques other than statistical methods in order to focus on activities, transactions, and effects occurring within a program (Madaus & Kellaghan, 2000).

In terms of program evaluation, there was ongoing technology monitored by the computer services staff. The administrators indicated that there was no formal evaluation conducted in INAC. Brian showed the assessment plan built in the strategic plan. The criteria for evaluation was derived based on the project goals. The measurement might be the quantitative or qualitative approaches. For example, the measurement indicators included the frequency of system use and faculty and students' opinions on system quality. Eric pointed out that some evaluation might be carried out at the end of this project. However, so far only Daniel provided regular reports of the INAC project. The statistics included the amount of the joint courses, the amount of faculty and students involved, and so on. In terms of possible evaluation in the future, the upper-level administrators had different expectations from the other administrators. The upper-level administration looked for the institutional impact from the project. They would like to know the

cost-effectiveness. The results would reveal how effective the international joint venture

was when comparing the investment to the usage and satisfaction. The other

administrators' expectations of evaluation were relevant to the learning effectiveness.

Gloria was interested in learning effectiveness of the students in this project. Frank

wanted to understand the interaction in the joint classes. Since the INAC project had

proceeded for more than six years, the administrators had a responsibility to be aware of

the evaluation issue. The administrators should have a picture of how well the project

proceeded and what improvements they could make in the future. Evaluations would help

the administrators to improve the future development of INAC.

### *Resources*

A strategic plan of collaboration needs resources to support the development. The resources include funding, staff, institutional support, and time (Glowacki-Dudka, 1999).

These resources have to be organized and coordinated in order to achieve the common

goals. Funding was the critical component mentioned in many research studies (Compore,

2003; Schifter, 2000; Milheim, 2001; Dooley & Murphrey, 2006). Harry pointed out that

a big challenge for INAC was to financially support itself. The other administrators also

mentioned the negative impacts that occurred after the i-Comm grant ran out of monetary

support. They encountered some difficulties running the tasks for this project with insufficient financial support.

In addition, many research studies indicated that the participation and commitment of faculty played a part in the process of collaboration (Schauer, Rockwell, Fritz, & Marx, 2005; Schoeny, Heaton, & Washington, 1999; Husmann & Miller, 2001; Meyer, 2002). Building a sense of joint ownership of the work would encourage faculty involved in collaboration (Ivarie, 1995). Their voices should be taken into account when developing the partnership.

The institutional support could function as incentives to encourage participation. For example, technology training, complementary awards and compensation, feasible process, and so on would benefit the development of collaboration. In the case of INAC, they had built up the system for faculty training. Allen emphasized their efforts in this aspect. For the future development, the middle-level and lower-level were still looking forward to continuing support and guidance. They suggested the upper-level administration should make the relevant policies and procedure about the international collaboration. From their perspectives, consistent institutional support would improve the inactive development of INAC.

## Conclusions and Recommendations for INAC

According to the discussion above, some conclusions and recommendations are made, including regaining attention on international exchanges, specifying the objectives, enlisting a project coordinator, enhancing organizational communication, developing consistent support, enhancing evaluation for improvement, and adapting a systematic approach for program development.

### *Regaining Attention on International Exchanges*

There were four key administrative incentives to the development of INAC. Two of those incentives were relevant to the trends of education: globalization and advancement of technology. This project was developed to provide the instant interaction with the overseas partners by the videoconferencing technology. Technology and international exchanges played two primary factors considered by the administrators. Many participants were attracted by these two incentives. Apparently, they contributed as much to the INAC project as the shared vision.

However, technology and international exchanges did not play even roles in the INAC project. INAC was simply an application of the videoconferencing technology used to connect various sites for many purposes. The issue of international exchanges

was just one of these purposes in this grant. According to some middle and lower-level administrators, this international emphasis did not continue to have the same attention over time because the MSU administration switched their focus to other issues. In addition, the project is mainly supervised by the administrators from the technology side. When speaking of the project in the interviews, these technology administrators sometimes used the videoconferencing technology as the synonym for this project. It seemed that the administrators centered on this technology more than international exchanges.

In order to achieve the ultimate goals of INAC, the administrators not only had to pay attention to technology, but also to international exchanges. If the MSU administration took globalization into account, the issue of international exchanges should be made into their policy, which would claim their determination on the aspect of international venture and maintain consistent support for this purpose. Only centering on technology could become a potential risk to the project development.

### *Specifying the Objectives*

Specific directions, which can be interpreted as visions or missions, will help to develop successful collaboration. In the case of INAC, the visions and objectives were

identified in its strategic plan. These goals and objectives really encouraged the participation of the administrators. It echoes the literature that espouses that shared visions would foster the commitment and enrollment. The INAC administrators were committed to this project because of the common goals. According to their perspectives, the faculty's interests, expertise, and expectations were included in these goals as well. Therefore, they were inspired and willing to participate in this project by the shared goals.

In terms of the project objectives, INAC needs to update them and make them specific. The INAC project was a part of the i-Comm grant. The project did not have its own objectives. The original goals were developed only for the first six months; more than five years ago. These objectives were supposed to be examined for their validity and reliability. In order to have better development, the project needs short-term and long-term objectives. These objectives would integrate the efforts and resources to reach the achievements. Also, the participants could be more engaged.

Another concern relevant to the objectives was that the middle-level and lower-level administrators did not receive the objectives. Even though the upper administrators explained that there were objectives in the strategic plan, the other

administrators did not receive these objectives as expected. The missing part was relevant to organizational communication in this project. No wonder some administrators thought the development of this project was flat. Lacking specific objectives made the participants feel no support and guidance. Eventually, the participants lost the energy and expectation. In addition, the project did not have sufficient resources and support like it did in the beginning. This would undermine the INAC development. The administrators had to be aware of the importance of objectives.

#### *Enlisting a Project Coordinator*

When the INAC project started, there was a project director to communicate, schedule, and arrange the tasks. Since the former director of the project left in 2005, there was no one to take over. The middle-level and lower-level administrators indicated that some issues occurred after the vacancy of the project coordinator. For example, the financial support and project promotion were mentioned by some administrators. Currently, the project is supervised by the provosts for information technology. Three campus units collaborate together to achieve the objectives. In order to negotiate and communicate among these units, the project coordinator plays the necessary role for the INAC development.

According to literature review, a leader should be an inspirer as well as a director.

In the case of INAC, a project director will encourage more faculty members' participation. The current faculty involved in INAC would have better communication and negotiation with the others because of the project director. In addition, the project development would be more efficient and effective under the supervision of a project director. If MSU takes the opportunity of international exchange into account, the INAC project will need a director for current development and future improvement.

#### *Enhancing Organizational Communication*

INAC is supported by the collective efforts of campus units. These units provide different expertise and professional assistance in three dimensions. Communication among them is the critical issue. According to literature review, good communication in collaboration can increase the understanding of the members and create consensus and rapport. At the interpersonal level, the INAC administrators develop good relationships for collaborative work. Ways of communication that were used include e-mail, phone calls, personal contact, and the videoconferencing technology.

At the organizational level, the technology usage and development were still reported to the upper administration. There was no other formal communication other



than the technology aspect. Since the former project director left, there were no longer committee meetings. The project lost a critical channel for conveying information and forming decisions. Some of the middle-level and lower-level administrators felt frustrated because there was no way to communicate with the upper-level administration. The administrators should enhance communication not only to establish a consensus or to inspire the participants, but to also have more input for future improvement.

### *Developing Consistent Support*

Maintaining the same tone toward the resources and support from the upper-level administration was the key for developing a distance education program. In the literature reviews, many issues were mentioned, such as financial support, faculty compensation and rewards, technology training, and so on. In the case of INAC, the technology transparency and faculty training were identified as the primary support by the upper-level administration. The other administrators looked forward to more support and assistance, especially in terms of financial support and administrative attention.

The INAC project was dependent on the i-Comm grant. Since the grant funds were running out, the project needed consistent financial support for future development. Many middle-level and lower-level administrators worried about the growth of

partnership development and maintenance because of financial shortage. In addition, the upper-level administration seemed to have many foci other than internationalism. The upper-level administration gave this project less attention. If MSU still insists on internationalism as a priority, the upper-level administrators should put it into the policy.

The literature review indicated that faculty will participate more in distance education programs if they are compensated. In the INAC project, the administrators were driven by the intrinsic factors other than extrinsic motives. However, some of them indicated faculty compensation would benefit the recruitment of faculty to this project. The upper-level administrators can take these factors into consideration.

#### *Enhancing Evaluation for Improvement*

Evaluations can benefit the program as well as the courses. For INAC, the evaluations so far occurred on the respects of technology and class. The computer services staffs provide regular monitoring of the performance of the campus infrastructure and usage of the videoconferencing technology. In addition, the faculty members conduct course evaluations at the end of the semester. These evaluations provided some feedback for project development. The upper-level administrators also mentioned there will be some evaluations at the end of this project. At the program level,

there was no evaluation. The upper-level administrators prepared the assessment plan of INAC from the beginning, but there was no one to carry out this task. In addition, the assessment plan focused on the quantitative evidence, such as the frequency and usage of the technology. Some of the administrators expected to interpret this project in different approaches. The naturalistic evaluation can provide the interpretative facts other than statistical data, which will help to understand this project in a different lens. The administrators should plan and organize for program evaluation in order to improve the future development.

#### *Adapting a Systematic Approach for Program Development*

Gideon (2002) indicated that the collaboration process must be purposeful, planned, and structured into a successful model. In order to develop a distance learning program of interorganizational coordination, all the process factors, internal and external, need to be taken into consideration as a whole. In INAC, the technology factor overweighs the others, such as financial support, program evaluation, program promotion and faculty compensation. Therefore, the administrators encountered many challenges when running this project.

Because the collaborative relationship is expected to continue over a long period of time, INAC needs the systematic approach for improving program development. By this approach, the administrators can deal with relationship issues with the overseas partners. Meanwhile, they can prepare the voluntary employees as well as the organizational structure within MSU. When all the factors are well considered, INAC can assure the sustainability. The MSU administrators can collect suggestions and comments from the INAC participants. The critical factors can then be analyzed out of their input. Therefore, the strategic plan of INAC can be enhanced according to these factors.

#### Conclusions and Recommendations for this Field

In addition to provide the recommendations for the INAC project, this study also concludes four suggestions for this field of international academic joint venture. First of all, this study uncovered the perceptual variance of collaboration incentives among the administrators, by which describes how the incoherent administrative tasks may influence interorganizational coordination. Then, the disincentive impacts of the administrative incentives are discussed to make comparison of their positive influences. The third recommendation is to discuss how well the Mattessich's model can be for investigating program development of interorganizational coordination. Fourth, the suggestion relevant

to the critical factors of program development, such as technology, budget, evaluation, and leadership, are examined for improvement.

### *Different Incentive Perceptions among Administrators*

Four incentives of interorganizational coordination were identified in the INAC project. However, the perceptions of these incentives among these INAC administrators were different in a degree. All the administrators emphasized the opportunity of international exchanges. This incentive drew most attention from those lower-level administrators. In their interviews, they uncovered their interest, expectancy, and experiences in this aspect. Even though the other administrators considered this incentive was a key component of INAC, they took other incentives into account.

Higher-level and mid-level administrators did not only focus on the content of the INAC project. They considered implementing technology as an innovative way to recruit more students, to reach business partners, to build up a leading image, and to establish international reputation. Their strategic thinking involved broader factors other than content development of this project. For example, the higher-level administrators indicated the importance of education trends in terms of globalization and technology. The technologists, the mid-level administrators of INAC, mentioned the relationship

between technology and campus image. In addition, some mid-level administrators mentioned the profits brought by the videoconferencing technology. The reason why the INAC administrators had different perceptions of collaboration incentives was relevant to their charge on work.

Because of different positions and standpoints, the administrators functionally collaborated in INAC at the beginning. After a while, the administrators could face different tasks and missions. For example, the higher-level and mid-level administrators built up the blue print by considering educational trends, potential profits, expanding resources, and school publicity. The lower-level administrators spent more time to communicate with the overseas partners. When time went by, the higher-level and mid-level administrators would switch to any opportunity to enhance school sustainability, but the rest still focused on the INAC project. That explains why some lower-level administrators felt lack of attention or assistance from higher administration.

The incoherent administrative tasks could influence the development of interorganizational coordination. Administrators need to make short-term plans as well as long-term plans for a project. Otherwise, a project will be undermined due to policy change or insufficient support. In addition, communication among the participants is

necessary so that administrators can better understand the status quo and future development of a project.

### *Disincentive Impacts of Administrative Incentives*

According to the data analysis, the administrative incentives had positive influences on the INAC project. For example, they helped to establish the goals, recruit the participants, leverage necessary resources, enhance formal communication, and negotiate course design. On the other hand, they might have disincentive impacts for this international academic joint venture in terms of cost-effectiveness, project achievement, and learning effects.

Technology played a key role in INAC. MSU built the broad bandwidth network infrastructure for interactive videoconferences. However, the advance of technology is rapid nowadays. The videoconferencing technology may be out of date and need to be replaced by other technology in a few years. The investment of this technological infrastructure will cause disputes in terms of cost-effectiveness. How long a technological system should be updated is a critical administrative issue, especially in the time with limited budget for public universities.

Another technological issue mentioned sometimes in INAC was the network connection. The connection quality with some overseas partners was unsatisfactory or unacceptable. Due to this technological difficulty, these overseas partners may postpone or quit the international academic joint venture. In addition, the students may have bad impression of this kind of learning. This kind of failure experiences did not help enhance school publicity of MSU. Technological issues can influence the project achievement in terms of organizational prestige.

International exchanges attract many participants for this INAC project. There were, generally speaking, only ten concurrent sessions for the students from both sides in the INAC courses. The students sometimes did not have enough time for collaborative assignments. Because of time difference, they may find it difficulty to contact their counter partners. In addition, these students may have different mindsets and expectancy toward these INAC courses. Their learning outcomes or experiences may not be as well as those of traditional instruction due to cultural differences. These INAC courses may impede the learning effects of the students.

The videoconferencing technology was designed for applying a grant. This way could benefit MSU for finding more monetary support. On the other hand, it will cause a



potential risk when the grant money was out. When commercialization becomes a consideration for leveraging project resources, the project management will face the sustainability issue. Its financial source can be unstable. The future development of the project will be impeded because the budget is limited. This is a controversy for project management.

These incentives have the positive impacts as well as the incentive impacts. The positive impacts of interorganizational coordination can be expected when administrators appropriately put the administrative incentives into account. The more administrators can understand both impacts of the incentives, the more they can take advantage of these factors as the driving force to improve project management.

#### *Usability Examination of Mattessich's Model*

This study adopted the Mattessich's model (20003) as the theoretical framework to examine how the INAC project functioned. In this model, six categories of factors influencing collaborative partnerships are identified, including general environment, memberships, structure, process, communication, purposes, and resources. The environmental audit examines the external conditions for a collaborative partnership. The memberships emphasize the interpersonal relationship among the participants. The

structure category refers to organizational configuration, while the process category includes the issues occurred in every step of a collaborative partnership. The communication category is relevant to the coordination and negotiation among the participants. The purposes category reflects the goals and objectives of a collaborative partnership. The last category, resources, includes time, money, manpower, and other thing needed for a collaborative partnership.

Mattessich's model is used to examine a general collaborative partnership. INAC is an international academic joint venture, which can be considered as a collaborative partnership. This model is generally suitable for INAC. These six categories provide a systematic way to examine the INAC project. Mattessich did not develop a linear model of collaboration steps. Instead, this model developed six dimensions to examine the INAC project in terms of project goals, organizational structure, administrators' participation, formal and informal communication, collaboration process, and resources. Most of the issues occurred in INAC could be included.

Evaluation was a critical issue of INAC. In Mattessich's model, it was categorized in the process category. It is an important factor influencing the success of a collaborative partnership. Evaluation can provide effective feedbacks for current progress or future

improvement. In order to measure the success or failure of a collaborative partnership, this factor should be taken into account. Evaluation can include formative evaluation and summative evaluation. The former occurs in the process, while the last take place at the end. Formative evaluation is relevant to every step in the collaboration process.

Summative evaluation just indicates how well the goals or missions of a collaborative partnership have been achieved. This factor, evaluation, can be considered as another category other than the six ones in Mattessich's model.

### *Practical Reflection on Interorganizational Coordination*

Some critical issues found in INAC are worthy discussion for the development of interorganizational coordination. Compensation is one of these issues. According to the literature, intrinsic motivators, rather than extrinsic motivators, would encourage faculty's participation in collaboration. The INAC administrators just echoed this notion. They participated in this project based on their interests or preferences. They did not join this project for monetary compensation or tenure. It claimed that the intrinsic motivators play the primary role for faculty to join a collaborative partnership.

Even though the INAC administrators considered the intrinsic motivators were the primary factors of encourage their participation, they also mentioned about some

compensation will persist their participation. For example, they recalled that the financial support for international trips would improve their connection with the counter partners. In addition, they also indicated that providing compensation could help recruiting faculty. These perspectives imply that the extrinsic motivators can draw attentions of potential faculty toward interorganizational coordination. Administrators who want to develop interorganizational coordination need to understand the impacts of extrinsic motivators as well as intrinsic motivators.

Another issue is technology. Videoconferencing technology was the primary way for cross-cultural interaction in INAC. It provided the real-time communication for the students and faculty on both sides. This technology did not only be used in class, but also used for peer discussion after class. The INAC courses were a kind of synchronous distance learning. The INAC administrators considered that it was a convenient and cost-effective tool to achieve the project goals.

Videoconferencing technology has its weakness in INAC, too. Some overseas partners encountered the problems of firewalls or bandwidth. The technologists at MSU mentioned that they kept looking for better technology for cross-cultural interaction. They researched optical cable network and digital technology for improving connection.

Recently, web 2.0 concept was a hot issue. The INAC technologists can build up a system based on this concept. This technology can provide a platform for students to asynchronously or synchronously exchange and share experiences and information, which can expand the interaction opportunities and access information more easily. The INAC project uncovered a critical fact of technology, technology transparency. The easier technology can be operated, the more faculty and students will use them.

Budget is a critical issue for interorganizational coordination. An international academic joint venture will not sustain well without sufficient funds. The INAC project exemplified in the degree how a university strived for a grant for expanding funds. The grant money expanded the financial source for MSU. In a highly competitive age, applying grants can be an effective way to improve teaching and learning. However, developing interorganizational coordination is not a short-term task. Without sufficient budget, a collaborative partnership will suffer in all aspects, including member recruiting, content development, program promotion, technology implementation, and so on.

When a university decides to develop an interorganizational coordination, the administrators have to arrange budget, which is not only from a grant. This kind of collaboration needs time and money to accumulate successful experiences. The

higher-level administration should allot budget by years, so that interorganizational coordination can achieve its missions and goals. Only relying on a grant, an interorganizational coordination project will suffer from insufficient money in the middle of the process.

In INAC, evaluation was the missing piece for project development. The strategic plan included the evaluation plan. However, it has not been done. The reason that there was no evaluation for INAC could be relevant to lack of a project coordinator. Without a project coordinator, these campus units did not follow the strategic plan, even though they still collaborated to achieve the international academic joint venture. These campus units kept working on interorganizational coordination without being supervised. These tasks just become a kind of routine for these INAC administrators.

In order to assure if an interorganizational coordination project is going in the right direction, a project coordinator needs to supervise all the participants' work. Evaluation can help a project coordinator to understand the ongoing status, as well as future development. In terms of communicating with the stakeholders, evaluation can facilitate internal and external communication among them. In a word, evaluation can practically help improving the performance of interorganizational coordination.

### Implications for Future Study

This study investigated what and how the administrative incentives influenced the international coordination of a distance education program. Only one case, which was the INAC project at MSU, was used as the lens to compare the project development with the literature. For future studies, more cases involved in the investigation will benefit the understanding of the findings. Collecting more data from relevant cases can expand the horizon of this kind of research. By doing so, these administrative factors will be taken into account when developing an international academic joint venture. In addition, the role of the administrators in a collaborative project will be noticed as important by the faculty and students.

Another implication for future studies is related to the participants. In this study, only the administrators at MSU were investigated since the INAC project was developed and launched on this campus. In order to have a holistic picture of how these administrative factors influence the partnership, more perspectives from the partner institutions at the distant sites will be beneficial. The administrators from those institutions can expand the depth of the understanding. By comparing the perspectives of the participants of two places, some cross-cultural issues may be discovered. This kind of

comparative study will explore the administrative influences to collaboration in the different contexts.

In INAC, technology played a critical role in the project. However, the advance of technology is very fast. Videoconferencing technology may be inadequate after years. Future studies can focus on technology application. Nowadays, web 2.0 technology becomes a hot issue. This kind technology encourages sharing and exchanging experiences among users. It may be interested to explore how web 2.0 technology can be incorporated into INAC courses. In addition, technology transparency was mentioned several times in the interviews of the INAC higher-level administrators. Searching for innovative technology which is easier to use can facilitate promoting this international academic joint venture.

Evaluation, especially in terms of program evaluation, is a critical issue for INAC. Future studies can investigate what and how evaluation outcomes influence administrators' decisions of interorganizational coordination. For example, how do administrators use evaluation results to improve program development? Or how do administrators relocate the resources based on the evaluation results? The political issues within project development can be uncovered by these studies. Meanwhile, more



perspectives of administrators can be uncovered, by which can be supplements to those collaborative partnership studies focusing on faculty and learners.

Interaction among the administrators is another interesting issue, which is not the focus of this study. The interpersonal relationships of the administrators have subtle impacts on the decision-making process of INAC. Future studies can locate on this aspect and investigate how formal and informal interactions influence the interorganizational coordination. Studies on this aspect can provide deeper insights of administrators in terms of project management.

### Summary

This chapter compared the study findings with the literature reviews in order to answer the research questions. In terms of administrative incentives, four factors were identified in INAC. The opportunity of international exchanges was the factor distinguished from those in the literature reviews. The other factors included organizational prestige, technology, and commercialization. The following section is the impacts of administrative incentives on collaboration. Five impacts were identified: establishing goals, recruiting participants, leveraging resources, enhancing communication, and negotiating course design. In terms of comparing INAC with

literature, the five categories of a successful collaborative partnership, which was proposed by Mattessich (2003), were implemented as the framework. The categories included general environment, membership, purpose and communication, structure and process, and resources.

According to the comparison, there were seven recommendations made for this INAC case. These recommendations highlighted the disadvantages in INAC. The administrators had to take them into consideration for future development. They included balancing the incentives, specifying the objectives, enlisting a project coordinator, enhancing organizational communication, developing consistent support, enhancing evaluation for future improvement, and adapting a systematic approach for program development. At the end, two implications were made for future studies. One was to include more cases, and the other was to investigate more participants from the overseas institutions.

Four recommendations were made for the field of international academic joint venture. First recommendation was relevant to different perceptions of administrative incentives among the interviewees. Their tasks and positions create different perceptions of administrative incentives. In addition, the disincentives impacts of administrative

incentives were discussed. Another recommendation was relevant to Mattessich's model.

According to this study, evaluation should be considered as a critical factor category for assessing collaborative partnership. The last recommendation was to provide practical hints for future international academic joint ventures.

## Appendix A: Interview Questions

1. Please describe your participation in the INAC project.
2. Why do you participate in the INAC project?
3. Please describe your partner organizations in the INAC project.
4. What motivates you to cooperate with the other organizations in the INAC project?

(The incentives may include: commercialization, organizational prestige, personal gains, professional rewards, shared responsibility, and so on.)

5. Do these incentives contribute to your participation in the INAC project? If so, how do they contribute?
6. How may these incentives encourage you to be more involved in distance learning?
7. How do you collaborate with other cohorts to achieve these incentives?
8. What obstacles do you encounter when working on the INAC project?
9. How do you negotiate different expectations from the organizational partners in the INAC project? (Following up: do you think each stakeholder needs to have the same incentive to achieve common goals?)

10. Please describe what have been the achievements in the INAC project, especially in terms of interorganizational collaboration. (Following up: do you have any data which can describe the achievement of the desired incentives in the INAC project?)
11. In the INAC project, how does your office coordinate with the other partner organizations to deal with budgeting?
12. In the INAC project, how does your office coordinate with the other partner organizations to deal with technology?
13. In the INAC project, how does your office coordinate with the other partner organizations to deal with marketing?
14. In the INAC project, how does your office coordinate with the other partner organizations to deal with program/curriculum planning?
15. In the INAC project, how does your office coordinate with the other partner organizations to deal with decision making?
16. In the INAC project, how does your office coordinate with the other partner organizations to deal with communication?
17. In the INAC project, how does your office coordinate with the other partner organizations to deal with evaluation?

18. How do the current outcomes of the INAC project match your projected expectation?
19. How do the current outcomes of the INAC project match the projected organizational outcomes?
20. If you could improve any part of this project, what improvement would you make?
21. Is there any comment you want to add?

## Appendix B: Recruitment Letter

Dear Mr./Mrs./Ms. \_\_\_\_\_ (Participant)

My name is Chia-Kun Lee, and I am a current doctoral student in the Department of Educational Studies, Ball State University, in Indiana, USA. In the spring semester, 2007, I will start my dissertation related to the development of the International Network of Academic Collaboration (INAC). As a stakeholder of the project, I sincerely ask for your help in order to understand the distance learning system.

The INAC project is a good example of distance learning, especially for international academic joint venture. Other than understanding the perspectives of faculty and learners, it is important and valuable to explore how the administrators view and implement interorganizational coordination. The results will hopefully help to enhance the effectiveness of this project and minimize the obstacles of program management. The study will also explore how these administrative incentives influence the collaborative relationship between MSU and the oversea partners.

As a stakeholder of INAC, I would like to discuss and learn from your experiences and perspectives related to the program. The study is designed for research purposes. Your responses will be implemented only for these purposes. From July, 2007, I will contact you for interviews. This interview will be recorded by audio or video taping under your permission. With your participation, the study will be helpful and practical. Please feel free to contact me for your decision.

E-Mail: [clee@bsu.edu](mailto:clee@bsu.edu); Cell phone number: 1-765-7492358

Address: 2217 W. Bethel Ave. #118, Muncie, IN. 47304 USA.

Just in case, the following is the contact information of Dr. Michelle Glowacki-Dudka, who is the faculty research advisor for the study.

E-Mail: [mdudka@bsu.edu](mailto:mdudka@bsu.edu); Phone number: (765)285-5348

The attached file is the interview questions list. Your feedback is very significant and helpful to the study. I sincerely hope that you will choose to participate in the study. Thank you in advance.

Sincerely Yours  
Chia-Kun Lee

### Appendix C: Informed Consent Letter

This is the informed consent letter for the case study, Administrative Incentive of Interorganizational Coordination for Distance Learning. Many academic studies indicated that the role of administrators is very critical to distance learning programs. However, there is not sufficient information in this aspect. In order to realize the impacts of the administrators to a distance program, this study implements the International Network of Academic Collaboration (INAC) project at Midwestern State University (MSU) as a case in which the researcher can explore why and how distance education administrators consider interorganizational coordination of distance learning. The following are the research questions:

1. What factors are considered when a university seeks to collaborate with other universities to extend educational opportunities through technology?
2. How do administrators' incentives influence the collaboration process of a distance learning program, including budgeting, recruitment, technology, and other components of program development, through the literature?

The study will use the qualitative approach, in which the interviews and documents analysis will be the means of data collection. As a participant, you can determine if you want to participate in the study or not. Even though you have participated in the study, you can quit at any time. In order to have your perspectives of INAC, a semi-structured questionnaire will be adopted in the process. With your approval, the conversation will be recorded by an audio recorder. In order to minimize the potential risk of showing your true identity, the researcher will assign a pseudonym for you. You also have the right to confirm data and quotations used in the research paper. After interviewing, the transcripts will be delivered back to you for verification. All the data components will be preserved by the researcher for at least three years. The data will be used only for the academic purpose. Only the researcher and the committee members can access the original data source.

**As a subject, I have read through the consent letter and totally agree what the study will be and what rights the subject has. I will voluntarily participate in the study. In addition, I will agree that the researcher may tape the conversation and take the pictures.**



(SIGNATURE)\_\_\_\_\_ (DATE)\_\_\_\_\_.

The Principal Investigator  
Chia-Kun Lee  
Doctoral Student  
Dept. of Educational Studies  
MSU  
(765)214-1104

The Faculty Research Advisor  
Dr. Michelle Glowacki-Dudka  
Associated Professor of  
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## Appendix D: IRB Approval Form



ACADEMIC AFFAIRS  
OFFICE OF ACADEMIC RESEARCH AND SPONSORED PROGRAMS

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## INSTITUTIONAL REVIEW BOARD

TO: Chia Kun Lee  
Educational Studies

FROM: Institutional Review Board  
Leonard Kaminsky, Chair  
Melanie L. Morris, Coordinator of Research Compliance

DATE: October 22, 2007

RE: Human Subjects Protocol –IRB # 08-006

TITLE: Administrative Incentives of Interorganizational Coordination for Distance Learning

The Institutional Review Board has approved the revision of the above protocol through expedited review. Such approval is in force from September 6, 2007 through September 5, 2008.

## Editorial Notes:

1. Please limit the number of recruitment attempts to three or allow potential participants to "opt out" of future recruitment attempts, in order to reduce the likelihood that potential participants may feel undue pressure to participate.
2. As you have indicated in Section IV that participants will be interviewed twice, please revise the statement in the informed consent document which states that participants will be interviewed "at least twice," as additional interviews beyond two per participants would require modification of the protocol.

As a reminder, it is the responsibility of the P.I. and/or faculty supervisor to inform the IRB in a timely manner:

- when the project is completed,
- if the project is to be continued beyond the approved end date,
- if the project is to be modified,
- if the project encounters problems, or
- if the project is discontinued.

Any of the above notifications should be addressed in writing to the IRB at Academic Research & Sponsored Programs (2100 Riverside Avenue). Please reference the new identification number given above in any communication to the IRB regarding this project. Be sure to allow sufficient time for review and approval of requests for modification or continuation.

pc: Michelle Glowacki-Dudka, Educational Studies

## References

- Adams, J. C. & Seagren, A. T. (2004). Distance education strategy: Mental models and strategic choices. *Online Journal of Distance Learning Administration*, 7(2).  
Retrieved January 14, 2007, from  
<http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Alway, M., Lewis, T., & Macklin, S. (2000). *A catalyst for collaboration: Supporting technology in teaching through partnerships*. Paper presented at the EDUCAUSE 2000 Conference: Thinking IT Through. Nashville, TN, October 10-13, 2000.
- Ary, D., Jacob, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education*. (7<sup>th</sup> ed.). Belmont, CA: Thomson Higher Education.
- Bailey, C. A. (2007). *A guide to qualitative field research*. Thousand Oaks, CA: Sage Publications.
- Bassey, M. (2002). Case study research. In M. Coleman & A. R. J. Briggs (Eds.). *Research methods in educational leadership and management*, 108-121. Thousand Oaks, CA: Sage Publications.

Beder, H. (1984a). Interorganizational cooperation: Why and how? In H. Beder (Ed.).

*New directions for continuing education: Realizing the potential of inter-organizational cooperation*, 3-22. San Francisco: Jossey-Bass.

Beder, H. (1984b). Principles for successful collaboration. In H. Beder (Ed.). *New*

*directions for continuing education: Realizing the potential of interorganizational cooperation*, 85-90. San Francisco: Jossey-Bass.

Beder, H. (1987). Collaboration as a competitive strategy. In C. Baden (Ed.). *New*

*directions for continuing education: Competitive strategies for continuing education*, 85-96. San Francisco: Jossey-Bass.

Bergquist, W., Betwee, J., & Meuel, D. (1995). *Building strategic relationships: How to*

*extend your organization's reach through partnerships, alliances, and joint ventures*. San Francisco: Jossey-Bass.

Berman, E. M. (1988). *Productivity in public and nonprofit organizations*. Thousand

Oaks, CA: Corwin Press.

Bogdan, R. C. & Biklen, S. K. (2003). *Qualitative research for education: An*

*introduction to theories and methods*. Boston: Pearson Education Group.

- Brooks, L. (2003). How the attitudes of instructors, students, course administrators, and course designers affect the quality of an online learning environment. *Online Journal of Distance Learning Administration*, 6(4). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Carliner, S. (2001). Administering distance courses taught in partnership with other institutions. *Online Journal of Distance Learning Administration*, 4(2). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Christo-Baker, E. A. (2004). *Distance education as a catalyst for change in higher education*. Paper presented at the 2004 ASCUE Conference. Myrtle Beach, SC, June 6-10, 2005.
- Compora, D. P. (2003). Current trends in distance education: An administrative model. *Online Journal of Distance Learning Administration*, 6(2). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Cortazzi, M. (2002). Analyzing narratives and documents. In M. Coleman & A. R. J. Briggs (Eds.). *Research methods in educational leadership and management*, 196-212. Thousand Oaks, CA: Sage Publications.

Denzin, N. K. & Lincoln, Y. S. (2000). *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications.

Dodgson, M. (1993). *Technological collaboration in industry: Strategy, policy and internationalization in innovation*. New York: Routledge.

Dooley, K. E. & Murphrey, T. P. (2000). How the perspectives of administrators, faculty, and support units impact the rate of distance education adoption. *Online Journal of Distance Learning Administration*, 3(4). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Dye, J. F., Schatz, I. M., Rosenberg, B. A., & Coleman, S. T. (2000). Constant comparison method: A kaleidoscope of data. *The Qualitative Report*, 4(1). Retrieved April 28, 2007, from <http://www.nova.edu/ssss/QR/QR4-1/dye.html>.

Ertmer, P. A., Bai, H., Dong, C., Khalil, M., Park, S. H., & Wang, L. (2002). *Online professional development: Building administrators' capacity for technology leadership*. Paper presented at the 23<sup>rd</sup> National Educational Computing Conference. San Antonio, TX, June 17-19, 2002.

Ezzy, D. (2002). *Qualitative analysis: Practice and innovation*. London: Routledge.

Fleming, T., Tammone, W., & Wahl, M. (2002). *E-learning: Addressing the challenges via collaboration*. (ERIC Document Reproduction Service No. ED467854).

Retrieved January 05, 2007, from ERIC database.

Fogelman, K. (2002). Surveys and sampling. In M. Coleman & A. R. J. Briggs (Eds.). *Research methods in educational leadership and management* (pp. 93-107).

Thousand Oaks, CA: Sage Publications.

Gay, L. R. & Airasian, P. (2003). *Educational research: Competencies for analysis and applications*. (7<sup>th</sup> ed.) Upper Saddle River, NJ: Pearson Education.

Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications*. (8<sup>th</sup> ed.) Upper Saddle River, NJ: Pearson Education.

Gideon, B. H. (2002). Structuring schools for teacher collaboration. *Education Digest*. 68(2), 30-35.

Glowacki-Dudka, M. L. (1999). *Interorganizational collaboration: Opportunities, challenges, and strategies for program planning*. Doctoral dissertation, University of Wisconsin-Madison, Madison, Wisconsin.

Godbey, G. C. & Turlington, B. (2002). A collaborative approach to international programs. In L. G. Dotolo & J. B. Noftsinger (Eds.). *New directions for higher*

*education: Leveraging resources through partnerships*, 89-98. San Francisco:

Jossey-Bass.

Green, M. & Baer, M. (2001). Global learning in a new age. *Chronicle of Higher*

*Education*, 48(11), 24-28.

Hache, D. (2000). Strategic planning of distance education in the age of teleinformatics.

*The Online Journal of Distance Learning Administration*, 1(2).

Harris, A., & Muijs, D. (2005). *Improving schools through teacher leadership*. U.K.:

Open University Press.

Havice, P. (2001). How administrators' attitudes and perceptions shape policy, practices,

and curriculum for distance education. *Quarterly Review of Distance Education*,

2(3), 255-263.

Havice, P., Watson, L. W., & Cawthon, T. W. (2000). Support of technology-based

distance education: Administrators' attitudes and perceptions. *Quarterly Review of*

*Distance Education*, 1(2), 129-138.

Hourcade, J. & Bauwens, J. (2001). Cooperative teaching: The renewal of teachers.

*Clearing House*, 74(5), 242. (ERIC Document Reproduction Service No.

EJ626142). Retrieved June 23, 2006, from ERIC database.



Howard, J. K. & Eckhardt, S. A. (2005). Why action research? The leadership role of the library media specialist. *Library Media Connection*, 24(2), 32-32.

Howell, E. (2000). Strategic planning for a new century: Process over product. *ERIC Clearinghouse for Community Colleges Los Angeles CA*. Retrieved from <http://www.ericdigests.org/2001-3/planning.htm> .

Husmann, D. E., & Miller, M. T. (2001). Improving distance education: Perceptions of program administrators. *Online Journal of Distance Learning Administration*, 4(3). Retrieved January 15, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Johnston, M. & Thomas, J. M. (1997). Keeping differences in tensions through dialogue. In M. Johnston (Ed.). *Contradictions in collaboration: New thinking on school/university partnerships*, 7-19. New York: Teachers College Press of Columbia University.

Kambutu, J. (2002). Administrators prefer technology-based distance learning. *Quality Review of Distance Education*, 3(3), 341-343.

Keller, C. (2005). Virtual learning environments: Three implementation perspectives. *Learning, Media and Technology*, 30(3), 299-311.

- Kezar, A. J. (2000). *Administration: ERIC trends, 1999-2000*. Washington, DC: ERIC Clearinghouse on Higher Education & Graduate School of Education and Human Development of George Washington University. (ERIC Document Reproduction Service No. ED446650).
- King, B. (2001). Managing the changing nature of distance and open education at institutional level. *Open Learning*, 16(1), 47-60.
- Langenback, M., Vaughn, C., & Aagaard, L. (1994). *An introduction to educational research*. Needham Heights, MA: Allyn and Bacon.
- Larrance, A. J. (2002). Expanding resources: Benefits to colleges and universities. In L. G. Dotolo & J. B. Noftsinger, Jr. (Eds.). *New directions for higher education: Leveraging resources through partnerships*, 3-10. San Francisco: Jossey-Bass.
- League for Innovation in the Community Colleges (1993). What presidents need to know about the impact of networking. *Leadership Abstracts*, 6(10). (ERIC Document Reproduction Service No. ED367433). Retrieved January 13, 2007, from ERIC database.
- LeCompte, M. D. & Preissle, J. (1993). *Ethnography and qualitative design in educational research*. San Diego, CA: Academic Press.

Levy, S. (2003). Six factors to consider when planning online distance learning programs in higher education. *Online Journal of Distance Learning Administration*, 6(1).

Retrieved January 14, 2007, from

<http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Levy, Y. (2001). *E-Learning: An overview of next-generation Internet based distance learning systems*. Paper presented at the World Conference on the WWW and Internet. Orlando, FL, October, 23-27, 2001.

Li, H. (2002). *Distance Education: Pros, cons, and the future*. Paper presented at the Annual Meeting of the Western States Communication Association. Long Beach, CA, March 2-5, 2002.

Madaus, G. F. & Kellaghan, T. (2000). Models, metaphors, and definitions in evaluation. In D. L. Stufflebeam, G. F. Madaus, & T. Kellaghan (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation*, 19-31. Norwell, MA: Kluwer Academic Publishers.

Mattessich, P. (2003). Can this collaboration be saved? Twenty factors that can make or break any group effort. *Shelterforce Online*, 129. Retrieved May 07, 2006 from <http://www.nhi.org/online/issues/129/savecollab.html>.

- McKenzie, B. K., Ozkan, B. C., & Layton, K. (2006). Tips for administrators in promoting distance programs using peer mentoring. *Online Journal of Distance Learning Administration*, 9(2). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Mertens, D. M. (1998). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches*. Thousand Oaks, CA: Sage Publications.
- Meyer, K. A. (2002). Does policy make a difference? An exploration into policy for distance education. *Online Journal of Distance Learning Administration*, 5(4). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Miles, M. B. & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis*. Thousand Oaks, CA: Sage Education.

- Milheim, W. (2001). Faculty and administrative strategies for the effective implementation of distance education. *British Journal of Educational Technology*, 32(5), 535-542.
- Mohn, R. (1988). *Success through partnership: An entrepreneurial strategy*. New York: Doubleday Publishing Group.
- Neal, D. C. (1988). School/college collaboration. In D. C. Neal (Ed.). *Consortia and inter-institutional cooperation*, 127-146. New York: Macmillan Publishing Company.
- Ng, C. F. (2006). Academics telecommuting in open and distance education universities: Issues, challenges, and opportunities. *International Review of Research in Open and Distance Learning*, 7(2), 1-16.
- Piskurich, G. M. (2004). *Getting the most from online learning: A learner's guide*. San Francisco: Pfeiffer.
- Ravid, R. & Handler, M. G. (2001). *The many faces of school-university collaboration: Characteristics of successful partnerships*. Englewood, CO: Teacher Ideas Press.
- Reindl-Johnson, C. (2005). *The effect of a computerized teaching assistant on student interaction, student satisfaction, and retention rates of students in a distance*

*course*. Paper presented at the 2004 ASCUE Conference. Myrtle Beach, SC, June 6-10, 2005.

Rockwell, K. S., Schauer, J., Fritz, S. M., & Marx, D. B. (1999). Incentives and obstacles influencing higher education faculty and administrators to teach via distance. *Online Journal of Distance Learning Administration*, 2(4). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Rogers, D. L. & Whetten, D. A. (1982). *Interorganizational coordination: Theory, research, and implementation*. Ames: The Iowa State University Press.

Rumble, G. (2000). The globalization of open and flexible learning: Considerations for planners and managers. *Online Journal of Distance Learning Administration*, 3(3). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Ryan, C. & Lane, J. (1998). Education initiatives inside business today. *Business Communication Quarterly*, 61(4), 124-129.

Ryan, G. W. & Bernard, H. R. (2003). Data management and analysis methods. In N. Denzin & Y. S. Lincoln (Eds.). *Collecting and interpreting qualitative materials*, 259-309. Thousand Oaks, CA: Sage Publications.

Sanders, M. G. (2006). *Building school-community partnerships: Collaboration for student success*. Thousand Oaks, CA: Corwin Press.

Schauer, J., Rockwell, S. K., Fritz, S., & Marx, D. (2005). Implementing distance education: Issues impacting administration. *Online Journal of Distance Learning Administration*, 8(3). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.

Schauer, J., Rockwell, S. K., Fritz, S., & Marx, D. (1998). *Education, assistance, and support needed for distance delivery: Faculty and administrators' perceptions*. Paper presented at the 14<sup>th</sup> Annual Conference on Distance Teaching & Learning. Madison, WI, August 5-7, 1998.

Schifter, C. C. (2000). Faculty motivators and inhibitors for participation in distance education. *Educational Technology*, 40(2), 43-46.

Schoeny, Z. G., Heaton, L. A., & Washington, L. A. *Perceptions and Educational Technology Needs of School Administrators*. Paper presented at the 10<sup>th</sup> SITE 99 conference. San Antonio, TX, February 28-March 4, 1999.

Schwartzbeck, T. D. (2003). *Declining counties, declining school enrollments*. Arlington, VA: American Association of School Administrators. (ERIC Document

Reproduction Service No. ED478349). Retrieved March 03, 2007, from ERIC database.

Simonson, M. (2003). Definition of the field. *Quarterly Review of Distance Education*, 4(1), vii-viii.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2006). *Teaching and learning at a distance: Foundations of distance education*. Upper Saddle River, NY: Pearson Education.

Song, H. & Yonkers, V. (2004). *The development and evaluation of multi-level assessment framework for analyzing online interaction*. Paper presented at the 27<sup>th</sup> Association for Educational Communications and Technology. Chicago, IL, October 19-23, 2004.

Szecszy, E. M., Danzig, A. B., & Gonzales, J. M. (2005). *The use of information and communication technology (ICT) to encourage reflection, interaction, and collaboration for innovation and professional growth in higher and adult education*. Paper presented at the 36<sup>th</sup> Annual Conference of the Northeastern Educational Research Association. Kerhonkson, NY, October 19-21, 2005.



- Valentine, D. (2002). Distance learning: promises, problems, and possibilities. *Online Journal of Distance Learning Administration*, 5(3). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Valentine, T. (1984). The consequences of mismanaged interagency collaborations. *New Directions for Continuous Education*, 23, 65-83.
- Villa, R. A., Thousand, J. S., & Nevin, A. I. (2004). *A guide to co-teaching: Practical tips for facilitating students' learning*. Thousand Oaks, CA: Corwin Press.
- Wilkins, B. (2004). Individual competencies and partnerships: the primary cultural influencers. In M. L. Conner (Ed.) *Creating a learning culture: Strategy, technology, and practice*, 263-281. New York: Cambridge University Press.
- Wiersma, W. & Jurs, S. G. (2005). *Research methods in education: An introduction*. Boston, MA: Pearson Inc.
- Wilson, C. (1998). Concerns of instructors delivering distance learning via the WWW. *Online Journal of Distance Learning Administration*, 1(3). Retrieved January 14, 2007, from <http://www.westga.edu/~distance/ojdla/browsearticles.php>.
- Yearwood, S. & Nichols, P. (1998). *Distance learning: The educational impact of an evolving technology*. Austin, TX: Texas State Board for Educator Certification.

(ERIC Document Reproduction Service No. ED421457). Retrieved February 26,

2007, from ERIC database.

Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.